

TC-K61 Limited Edition

Canadian Model
AEP Model
E Model



'Dolby' and the double-D symbol are the trade marks of Dolby Laboratories. Noise reduction system manufactured under license from Dolby Laboratories.

STEREO CASSETTE DECK

SPECIFICATIONS

GENERAL

Power Requirements:	120 V ac, 60 Hz (Canadian model) 220 V ac, 50/60 Hz (240 V ac adjustable by authorized Sony personnel) (AEP model) 110, 120, 220 or 240 V ac adjustable, 50/60 Hz (E model)
Power Consumption:	26W
Dimensions:	Approx. 430 (w) x 130 (h) x 295 (d) mm 17 (w) x 5 ¹ / ₈ (h) x 11 ⁵ / ₈ (d) inches including projecting parts and controls
Weight:	Approx. 5.7 kg, 12 lb 10 oz

SAFETY RELATED COMPONENT WARNING

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLEMENTS PUBLIÉS PAR SONY.

TAPE RECORDER SECTION

Recording System:	4-track 2-channel stereo
Fast-forward and Rewind Time:	Approx. 80 sec. (with C-60 cassette)
Frequency Response:	DOLBY NR OFF Canadian model <ul style="list-style-type: none">• With TYPE IV cassette (Sony METALLIC) 20–19,000 Hz30–17,000 Hz (± 3 dB)30–13,000 Hz (± 3 dB, 0 VU recording)• With TYPE III cassette (Sony Fe-Cr) 20–19,000 Hz30–17,000 Hz (± 3 dB)• With TYPE II cassette (Sony EHF) 20–18,000 Hz30–16,000 Hz (± 3 dB)• With TYPE I cassette (Sony HFX) 20–17,000 Hz
	— Continued on next page —

Tape Transport Mechanism Type | TCM-100V14

SONY
SERVICE MANUAL

TC-K61

Limited Edition

Canadian Model
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SPECIFICATIONS

GENERAL

- Power Requirements:** 120 V ac, 60 Hz (Canadian model)
220 V ac, 50/60 Hz
(240 V ac adjustable by authorized Sony personnel) (AEP model)
110, 120, 220 or 240 V ac
adjustable, 50/60 Hz (E model)
- Power Consumption:** 26W
- Dimensions:** Approx. 430 (w) x 130 (h) x 295 (d) mm
17 (w) x 5 $\frac{1}{8}$ (h) x 11 $\frac{5}{8}$ (d) inches
including projecting parts and controls
- Weight:** Approx. 5.7 kg, 12 lb 10 oz

SAFETY RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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MATIQUES, LES VUES EXPLOSEES ET LA LISTE
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COMPOSANTS QUE PAR DES PIÈCES SONY DONT
LES NUMÉROS SONT DONNÉS DANS CE MANUEL
OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TAPE RECORDER SECTION

- Recording System:** 4-track 2-channel stereo
- Fast-forward and Rewind Time:** Approx. 80 sec. (with C-60 cassette)
- DOLBY NR OFF**
- Frequency Response:** Canadian model
- With TYPE IV cassette (Sony METALLIC)
20–19,000 Hz
30–17,000 Hz (± 3 dB)
30–13,000 Hz (± 3 dB, 0 VU recording)
 - With TYPE III cassette (Sony Fe-Cr)
20–19,000 Hz
30–17,000 Hz (± 3 dB)
 - With TYPE II cassette (Sony EHF)
20–18,000 Hz
30–16,000 Hz (± 3 dB)
 - With TYPE I cassette (Sony HFX)
20–17,000 Hz

— Continued on next page —

Tape Transport Mechanism Type | TCM-100V14

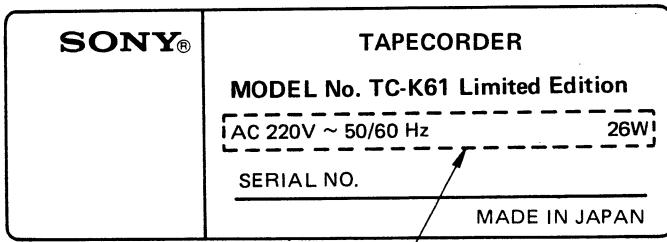
SONY®
SERVICE MANUAL

TC-K61 Limited Edition

AEP, E model	Total Harmonic Distortion:	1.0% (with Sony METALLIC and Fe-Cr cassettes)
• With TYPE IV cassette (Sony METALLIC) 20–19,000 Hz 30–17,000 Hz (± 3 dB) 30–13,000 Hz (± 3 dB, 0 VU recording) 30–17,000 Hz (DIN)	Record Bias Frequency:	105 kHz
• With TYPE III cassette (Sony Fe-Cr) 20–19,000 Hz 30–17,000 Hz (± 3 dB) 30–17,000 Hz (DIN)	Inputs:	MIC (two phone jacks) sensitivity 0.25mV (-70 dB) for a low-impedance microphone
• With TYPE II cassette (Sony CD-Q) 20–18,000 Hz 30–16,000 Hz (± 3 dB) 30–16,000 Hz (DIN)	LINE IN (two phono jacks) sensitivity 77.5 mV (-20 dB) input impedance 50 k Ω	REC/PB (connector) . . . (AEP, E model) input impedance less than 10 k Ω
• With TYPE I cassette (Sony BHF) 20–17,000 Hz 30–15,000 Hz (DIN)	Outputs:	LINE OUT (two phono jacks) Maximum output level 0.435 V (-5 dB) at a load impedance of 50 k Ω with PHONES/LINE OUT level control at "0" Variable in five steps from -5 dB to -29 dB Load impedance over 10 k Ω
Wow and Flutter: 0.035% WRMS (Canadian model) 0.035% WRMS (NAB) } $\pm 0.1\%$ (DIN) } (AEP, E model)	HEADPHONES (binaural jack) Output level variable in five steps from -20 dB to -44 dB at a load impedance of 8 Ω	REC/PB (connector) . . . (AEP, E model) output impedance less than 10 k Ω
S/N Ratio: DOLBY NR OFF Canadian model	LED Peak Program Meters:	0 dB = 0.775 V
• With TYPE IV cassette (Sony METALLIC) 59 dB at peak level	Response range: -40 dB to +8 dB	
• With TYPE III cassette (Sony Fe-Cr) 59 dB at peak level	Frequency response: 20–20,000 Hz ± 1.5 dB	
• With TYPE II cassette (Sony EHF) 57 dB at peak level	Response time: 1 millisecond	
AEP, E model	Decay time (from 0 dB to -20 dB): 750 milliseconds	
• With TYPE IV cassette (Sony METALLIC) 59 dB at peak level (NAB) 56 dB (DIN)	Overshoot: None	
• With TYPE III cassette (Sony Fe-Cr) 59 dB at peak level (NAB) 56 dB (DIN)	Indicator elements: 16 elements for each channel	
• With TYPE II cassette (Sony CD-Q) 57 dB at peak level (NAB)		
DOLBY NR ON Improved by 5 dB at 1 kHz, 10 dB above 5 kHz		

MODEL IDENTIFICATION

— Specification Label —



AC 220V ~ 50/60 Hz 26W AEP model
AC 120V 60 Hz 26W Canadian model
AC 110, 120, 220, 240V ~ 50/60 Hz 26W E model

SERVICING NOTE

When the top cover is removed the internal photo transistor may pick up stray light and shut the set off.

Handling Precautions for MOS ICs

Generally, the insulation resistance of the oxide layer in MOS IC structures is very high, and the oxide layer is very thin. Because of this, it is possible that the static voltages usually present on clothes and the human body will be enough to generate a potential difference across the insulator, high enough to cause a breakdown of the insulating layer.

The following precautions should be taken while handling these ICs.

(Particular care should be taken under conditions of low humidity.)

Precautions in Replacing MOS ICs

1. Store new ICs by inserting them into a urethane-polyester cushion (which is somewhat conductive), or wrapping it in aluminum foil, so that all the pins are at the same potential.
(The ICs should be stored in that manner until mounted on the circuit board.)

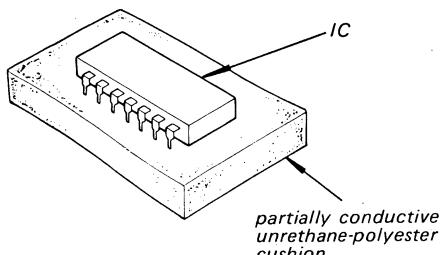


Fig. A

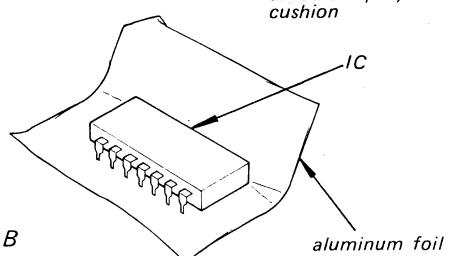


Fig. B

2. Check the soldering iron for possible power-line leakage current. Make sure that there is no leakage path by connecting an ohmmeter to the tip of the soldering iron and the plug as shown in Fig. C. If there is a leakage path, use some other soldering iron.

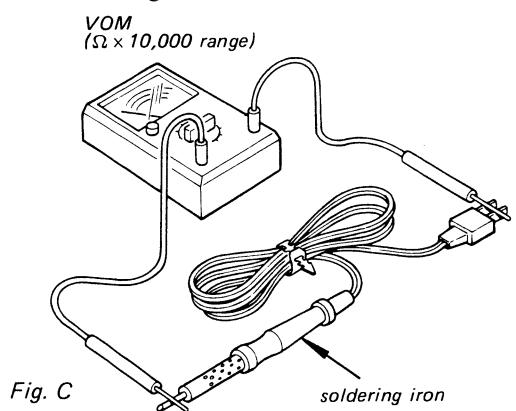


Fig. C

3. Equalize any potential difference between the clothes, the tools in use, the work bench, the set being worked on, and the packaged IC by touching them all in succession with the hands or a conductive wire or tool.
4. The following are effective methods for handling ICs that remove the potential difference across the oxide layer.
 - Use a paper clip modified by soldering in a wire braid insert.

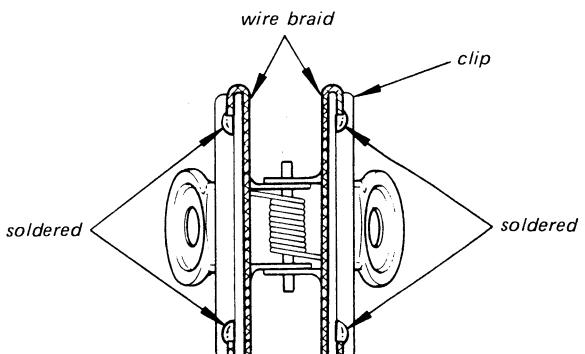


Fig. D

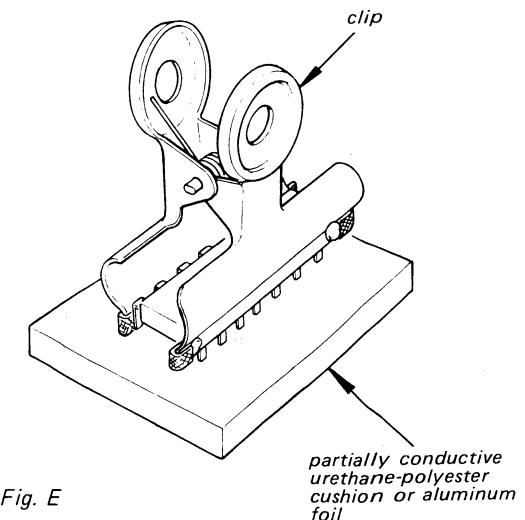


Fig. E

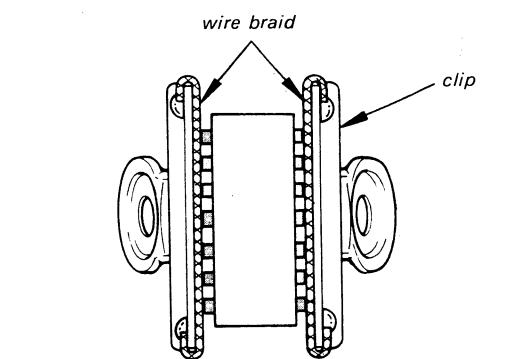


Fig. F

- Take a short length of fine bare wire and wind it around the IC so that it shorts all the pins of the IC, while it is still in the urethane-polyester cushion or aluminum foil. This ensures that all the pins are at the same potential.

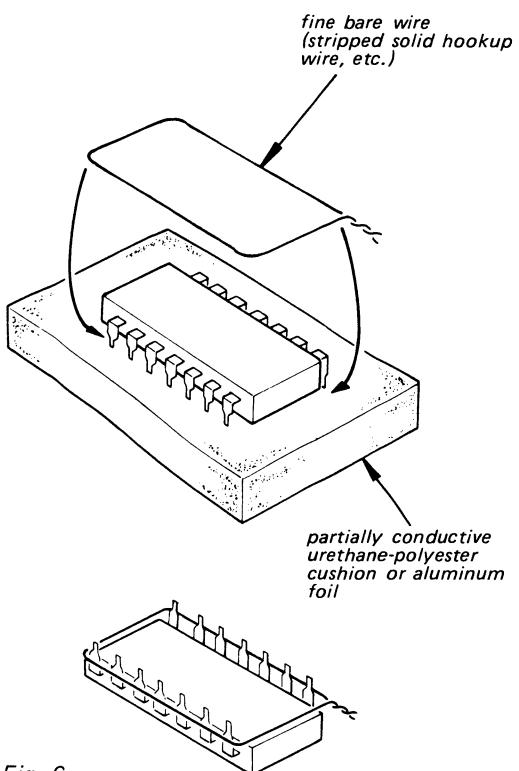


Fig. G

- When it is necessary to handle the IC with the fingers, do not touch any pin, and hold the IC at the ends of its plastic-package case as shown in Fig. H.

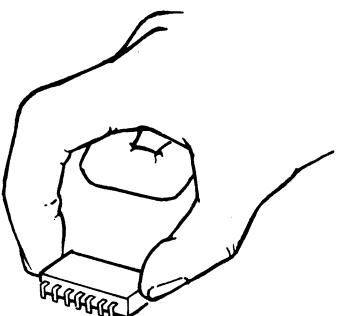


Fig. H

5. Method of Mounting

Insert the IC while holding it with the modified clip, and solder all the pins with the clip still shorting the pins. (Similarly, solder all the pins while the bare shorting wire is still wound around them.). Remove the clip or the bare shorting wire only after all the pins have been soldered.

Precaution while Checking C-MOS ICs

The C-MOS ICs (Complementary MOS) are MOS ICs that have their output sections made up of N-channel and P-channel push-pull stages to increase their speed of operation. If the output terminal of these ICs comes into contact with B+ or B- voltage, then the FET which is ON at that time will either become shorted or open.

This is valid for all the output sections that are connected together by the interconnections. Even the circuits that are physically separated (and not on the same board) can be destroyed simultaneously.

Example:

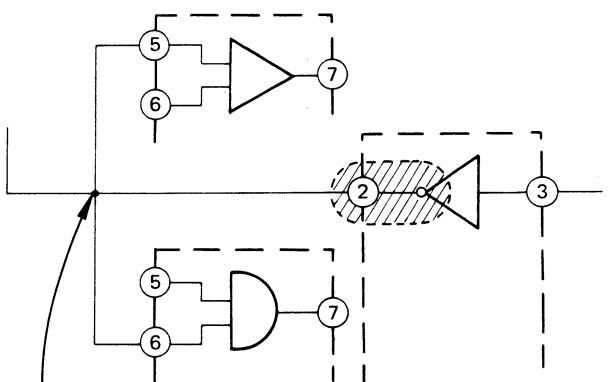


Fig. I

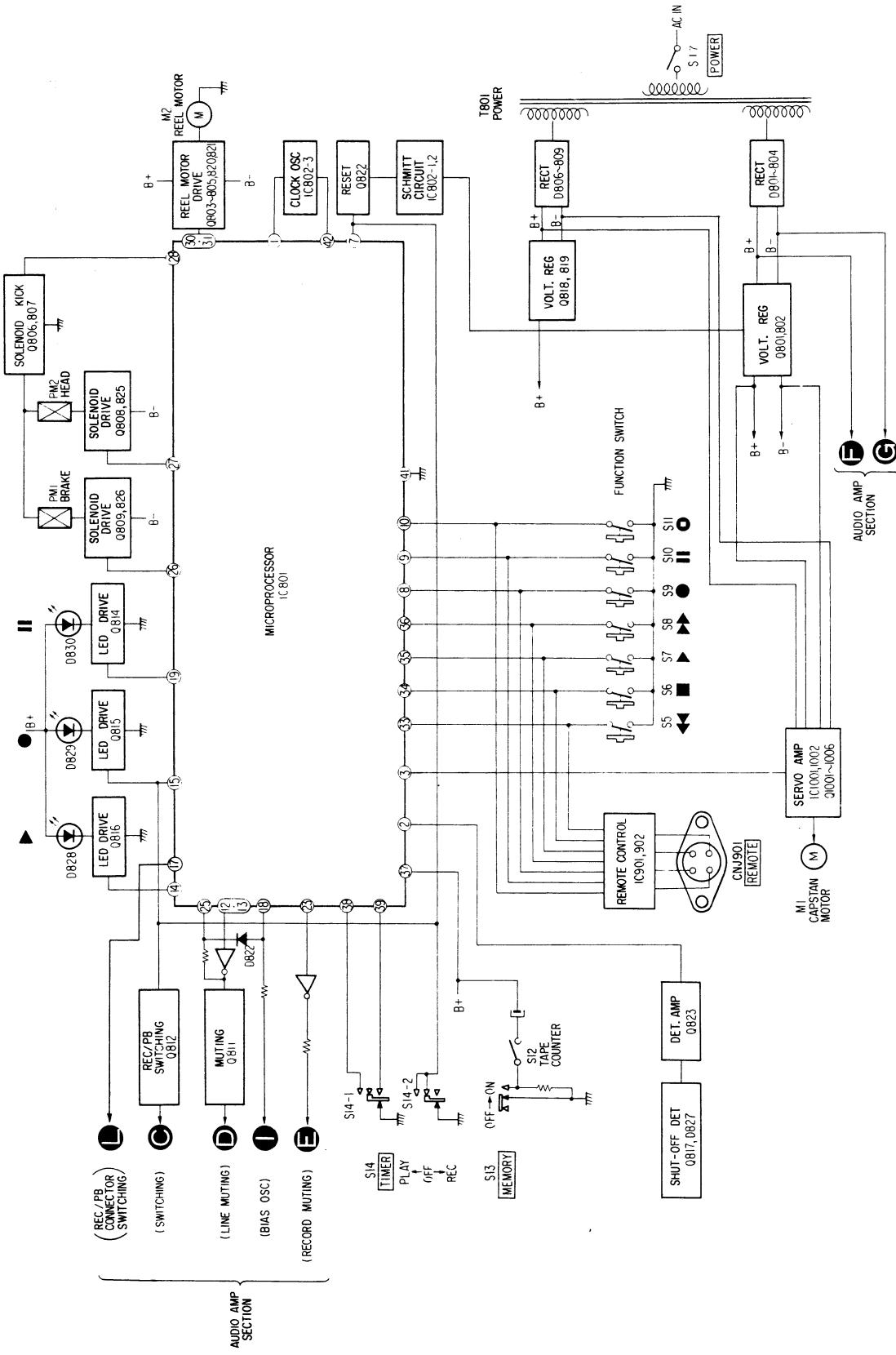
If this line is grounded, or touches
B+ or B- bus . . . , the output stage
of this IC will be destroyed.

Fig. I

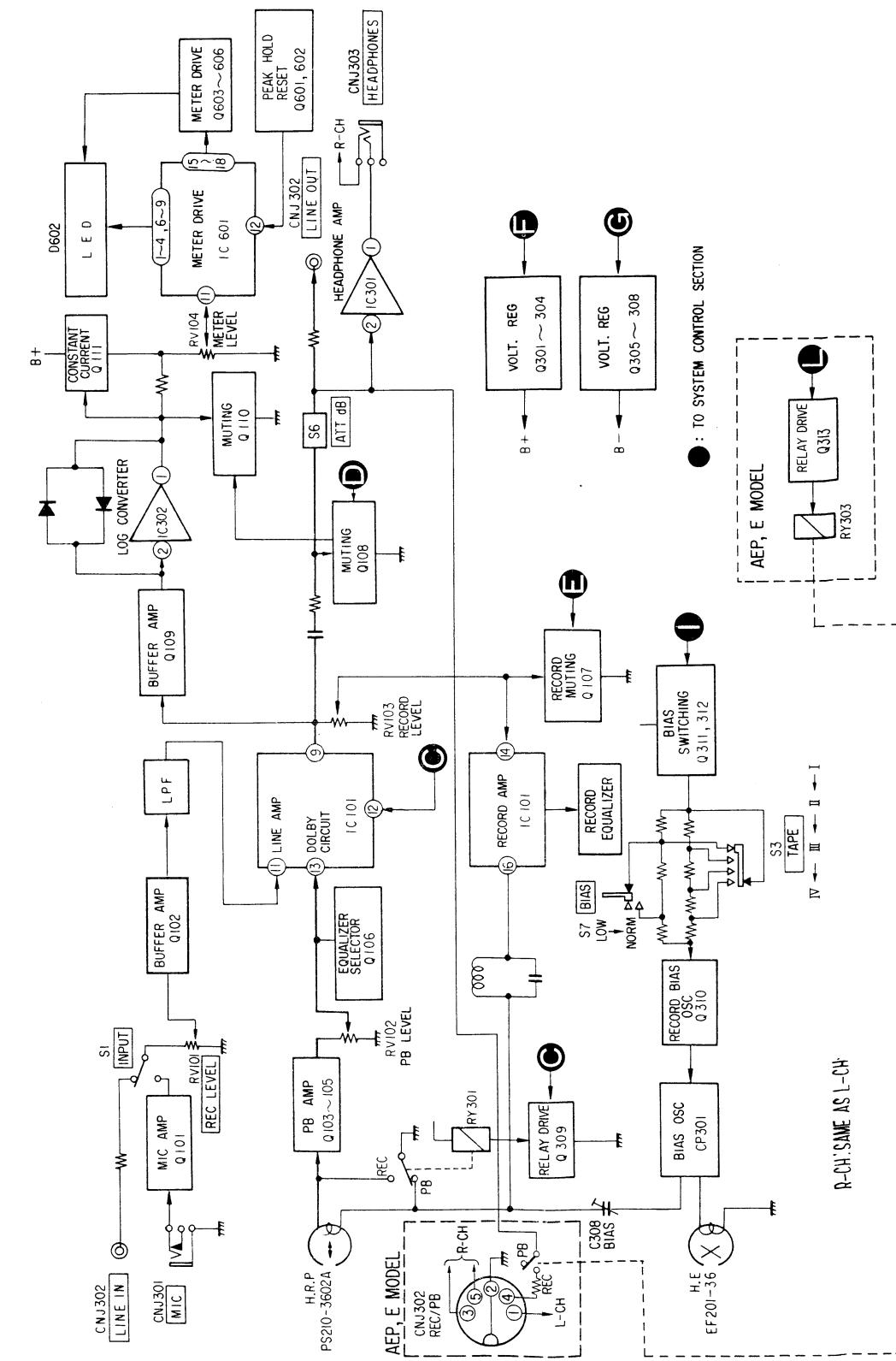
TC-K61 Limited Edition

SECTION 1 OUTLINE

1-1. BLOCK DIAGRAM — System Control Section —



1-2. BLOCK DIAGRAM



SECTION 2 DISASSEMBLY

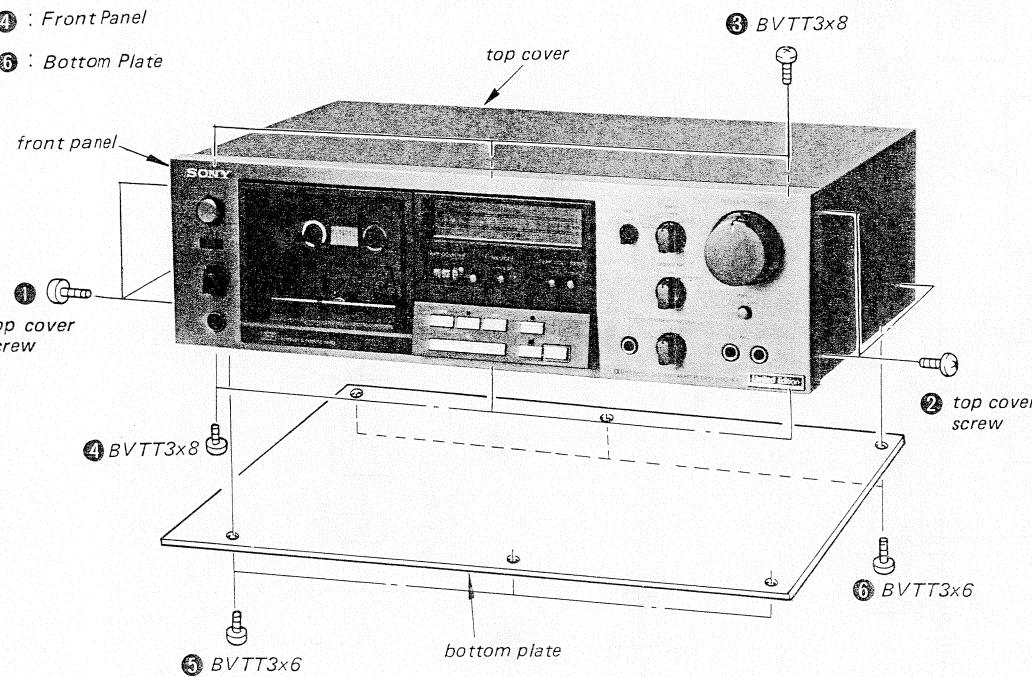
Note: Follow the disassembly procedure in the numerical order given.

TOP COVER/FRONT PANEL/BOTTOM PLATE

①, ② : Top Cover

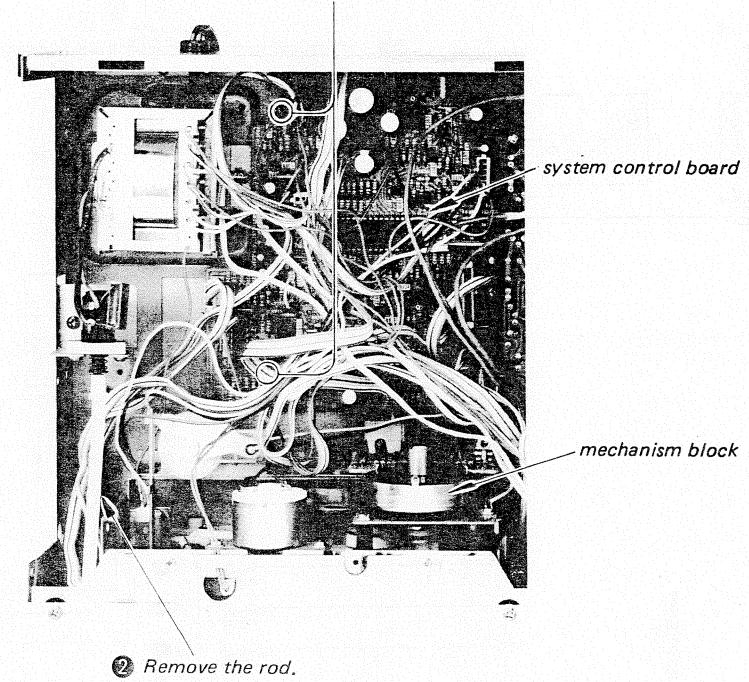
①-④ : Front Panel

⑤, ⑥ : Bottom Plate



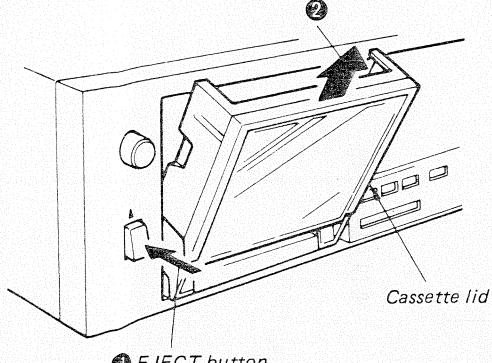
MECHANISM BLOCK

① Remove two screws (BVTT3x6) and free the system control board.

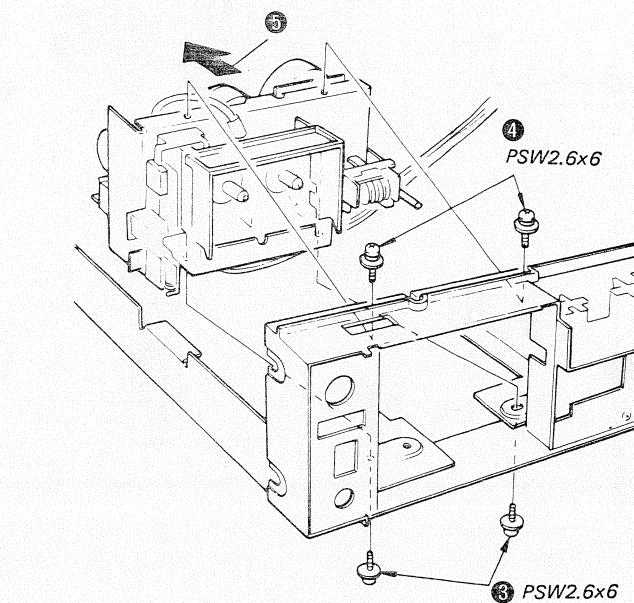
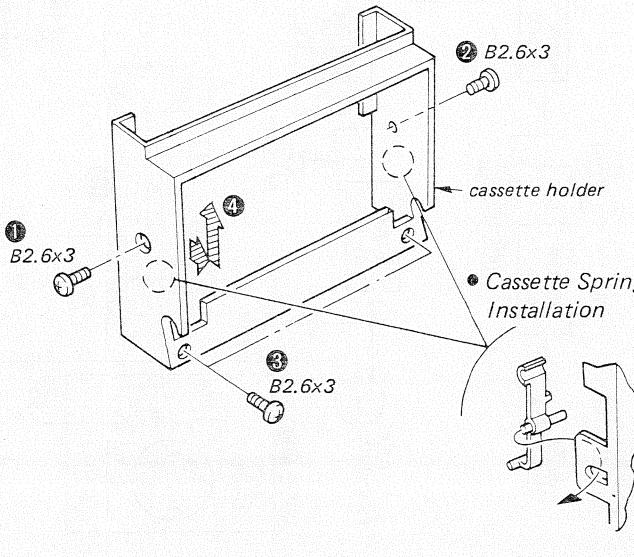


② Remove the rod.

CASSETTE LID



CASSETTE HOLDER



SECTION 3

ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

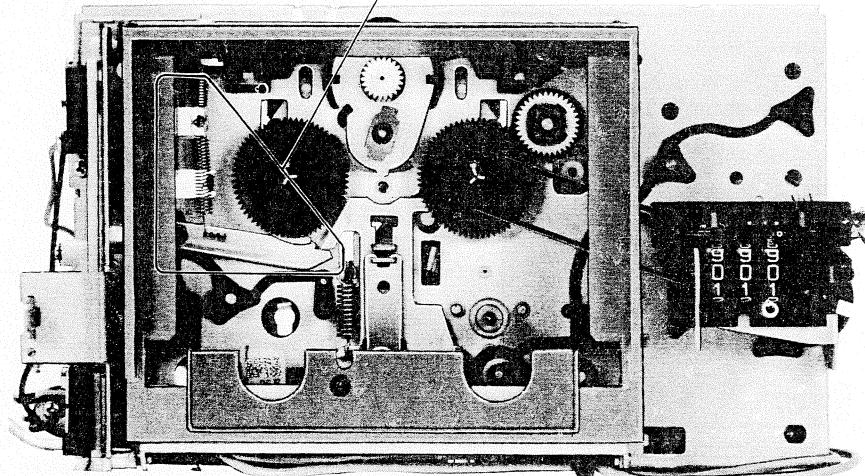
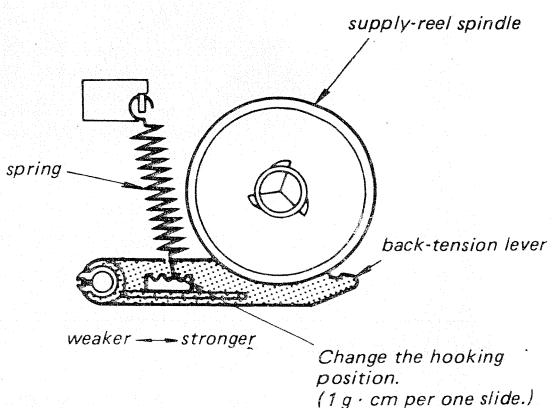
1. Clean the following parts with a denatured-alcohol-moistened swab:

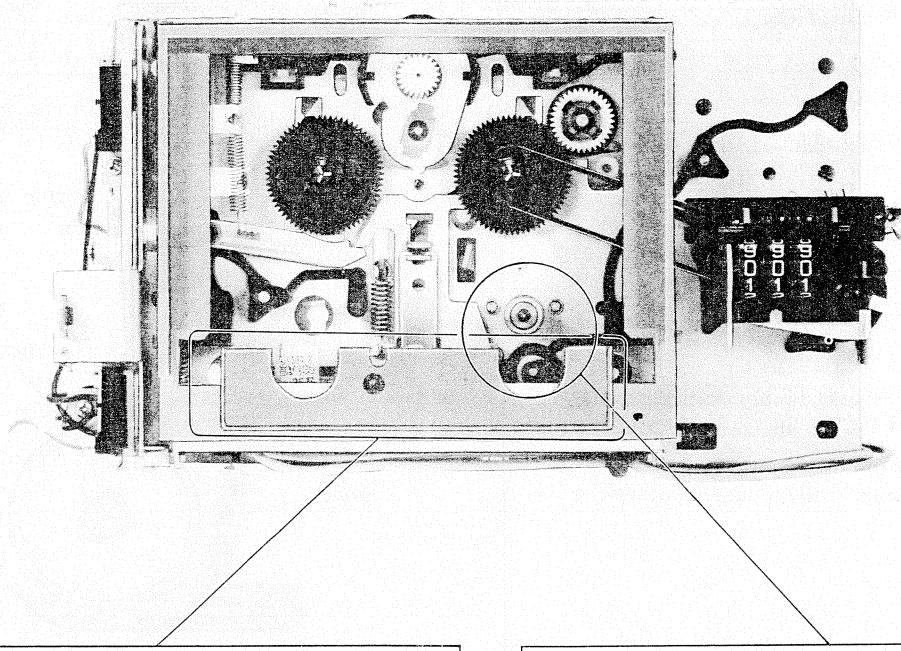
record/playback head	pinch roller
erase head	rubber belts
capstan	idle
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement and Back Tension Torque Adjustment

1.	Torque	Torque meter	Meter reading
	Forward	CQ-102C	28-50 g · cm (0.39-0.69 oz · inch)
	Back tension	CQ-102C	2.5-5 g · cm (0.04-0.06 oz · inch)

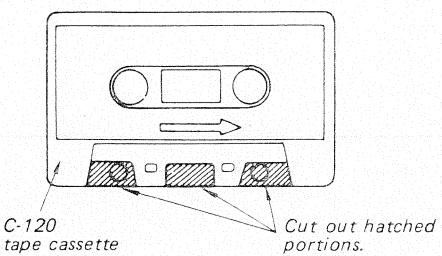
2. If the specified back-tension torque is not obtained, change the hooking position.



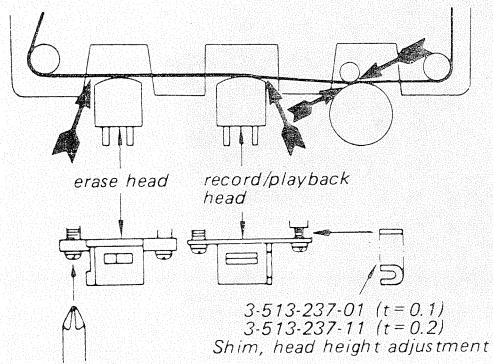


Head Height Adjustment

1. Prepare an adjustment cassette as shown below.

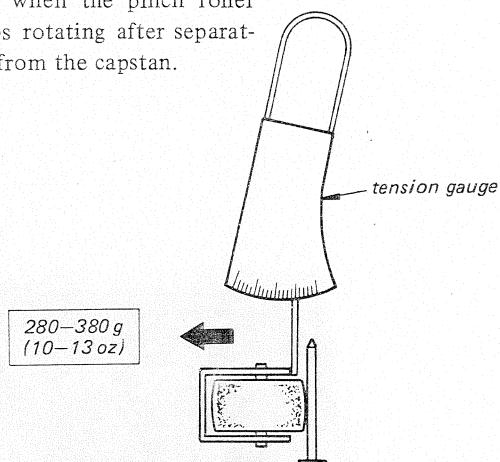


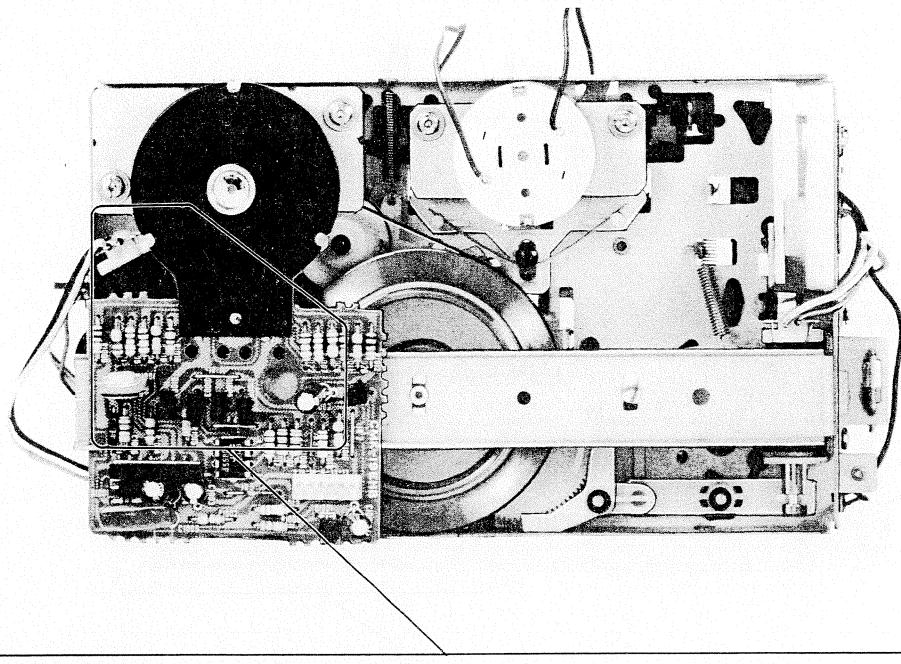
2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrow.



Pinch Roller Pressure Measurement — Forward Mode —

Slowly pull the pinch roller and read the tension gauge just when the pinch roller stops rotating after separating from the capstan.





Brake Solenoid (PM1) Position Adjustment

— Stop Mode —

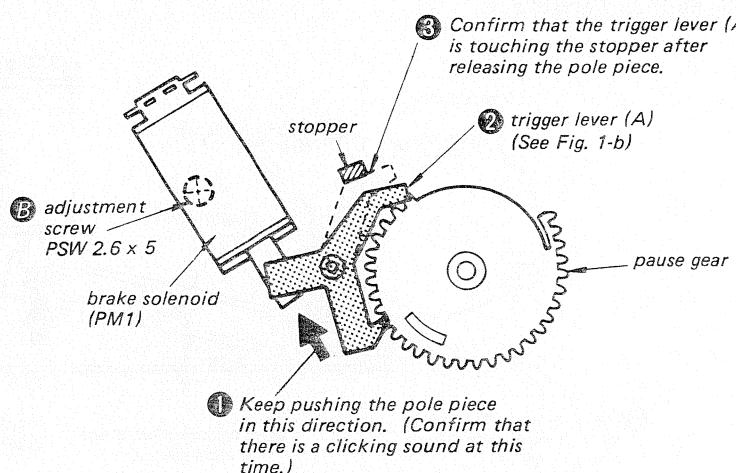
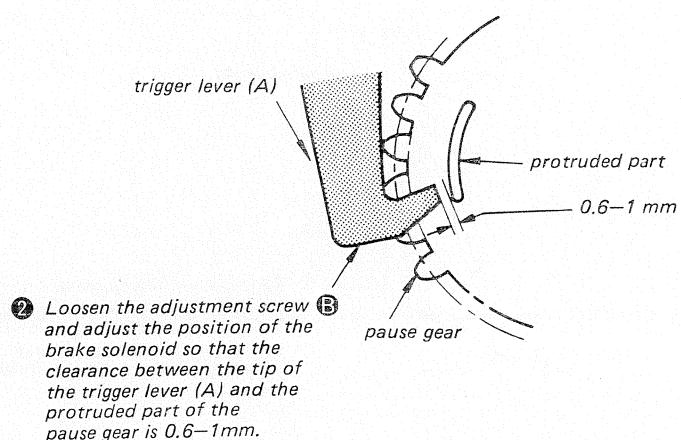
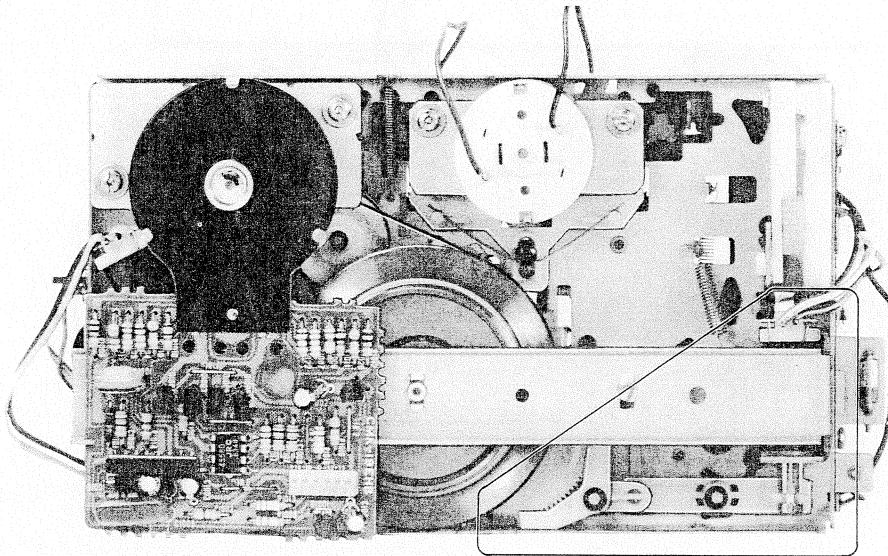


Fig. 1-a.





Head Solenoid (PM2) Position Adjustment — Stop Mode —

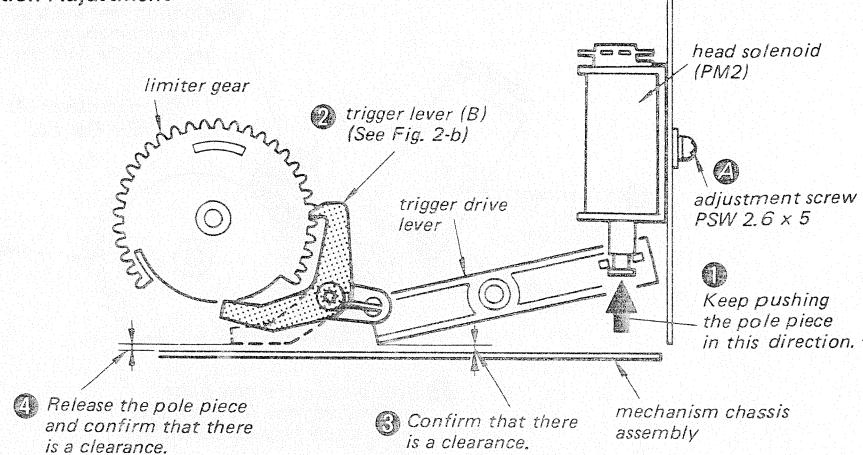
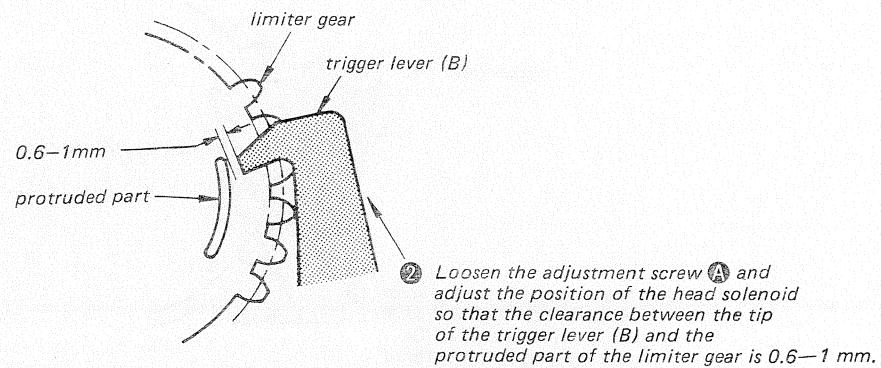


Fig. 2-a



3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Set the BIAS and EQ switches according to the tape as follows.

Tape	BIAS switch	EQ switch
CS-10	NORM	TYPE I
CS-25	NORM	TYPE II
CS-30	NORM	TYPE III
CS-40	NORM	TYPE IV

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch:	OFF
EQ switch:	TYPE I
BIAS switch:	NORM
REC MUTE switch:	OFF
Timer switch:	OFF
LINE OUT control:	"0"

- Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

Standard Input Level

	MIC	LINE IN	REC/PB (AEP, E model)
source impedance	300 Ω	10 kΩ	100 kΩ
input level	0.77 mV (-60 dB)	0.25 V (-10 dB)	17 mV (-33 dB)

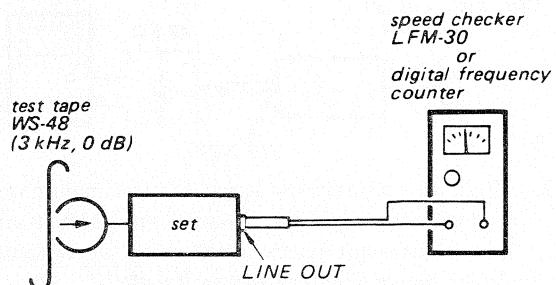
Standard Output Level

	LINE OUT	HEAD- PHONES	REC/PB (AEP, E model)
load impedance	47 kΩ	8Ω	50 kΩ
output level	0.44 V (-5 dB)	39 mV (-26 dB)	0.44 V (-5 dB)

Tape Speed Adjustment

Procedure:

Mode: playback



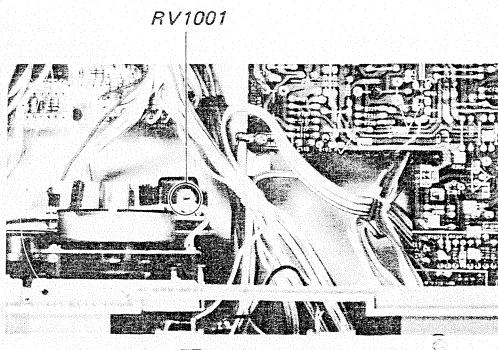
Specification:

Speed checker	Digital frequency counter
-0.3 to +0.3%	2990 – 3010 Hz

Frequency difference between the beginning and the end of the tape should be within 0.7 % (20 Hz).

Adjustment Location:

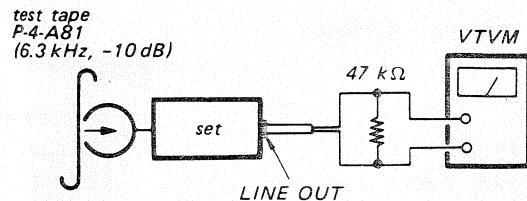
— servo amp board —



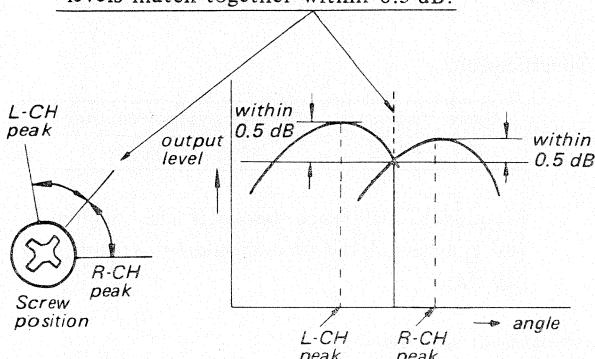
Record/playback Head Azimuth Adjustment

Procedure:

- Mode: playback

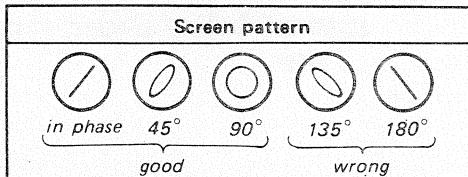
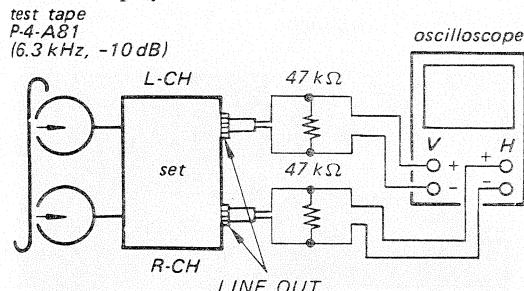


- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.

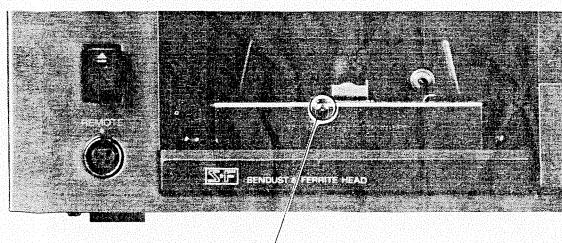


- Phase Check

Mode: playback



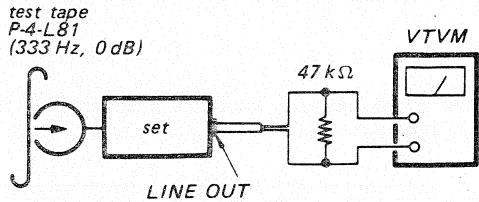
Adjustment Location:



Playback Level Adjustment

Procedure:

- Mode: Playback



Adjust RV102 (L-CH) and RV202 (R-CH) to obtain the specified LINE OUT level.

Specification:

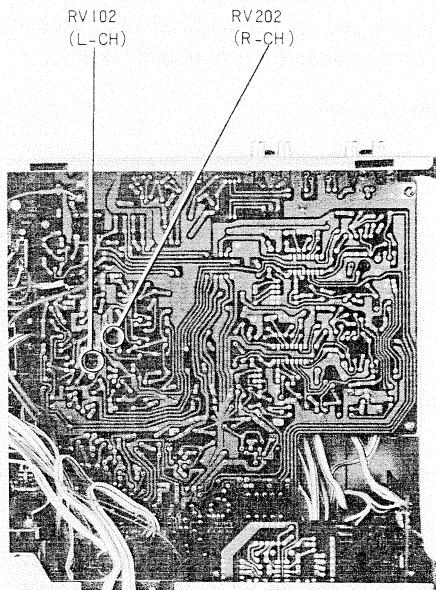
LINE OUT level: 0.52 – 0.59 V
(-3.5 to -2.5 dB)

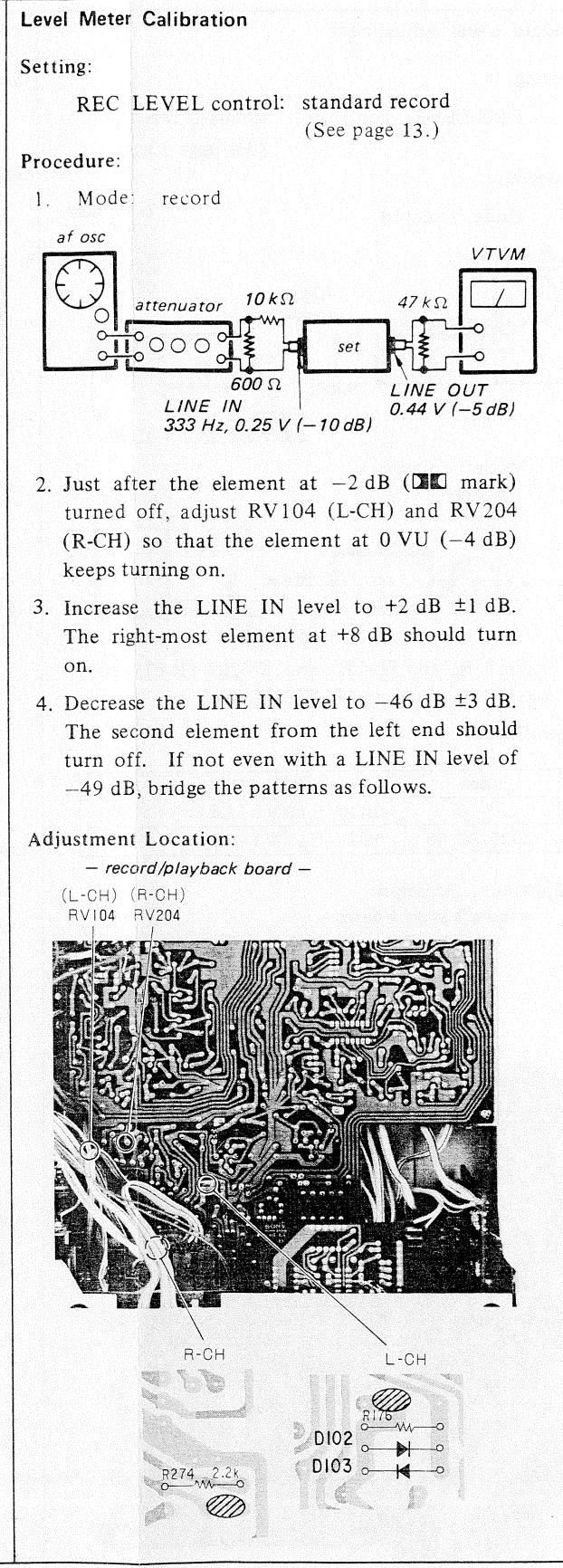
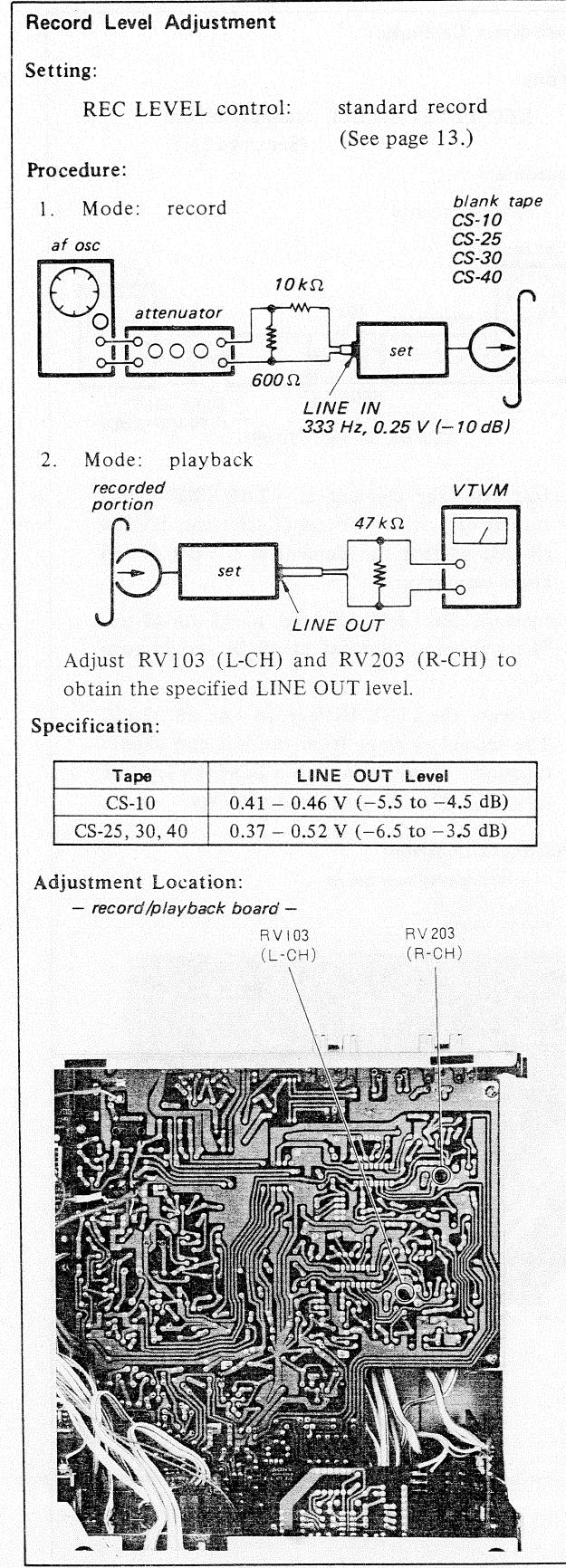
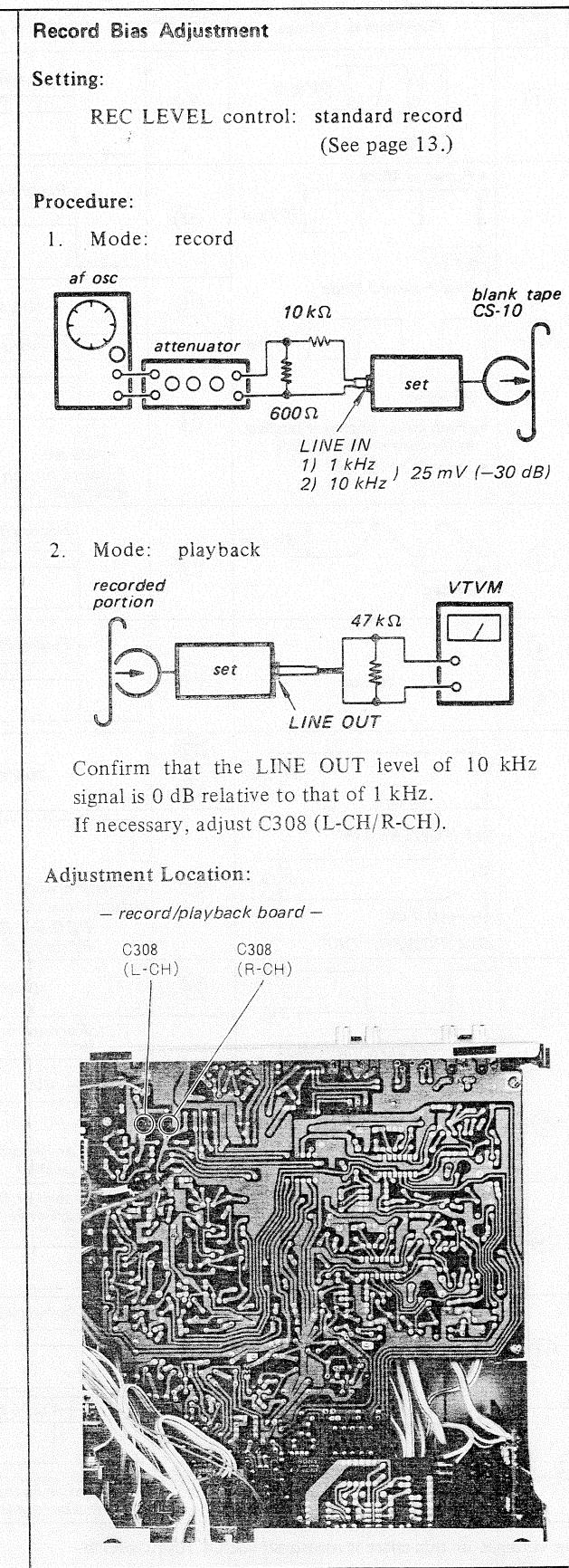
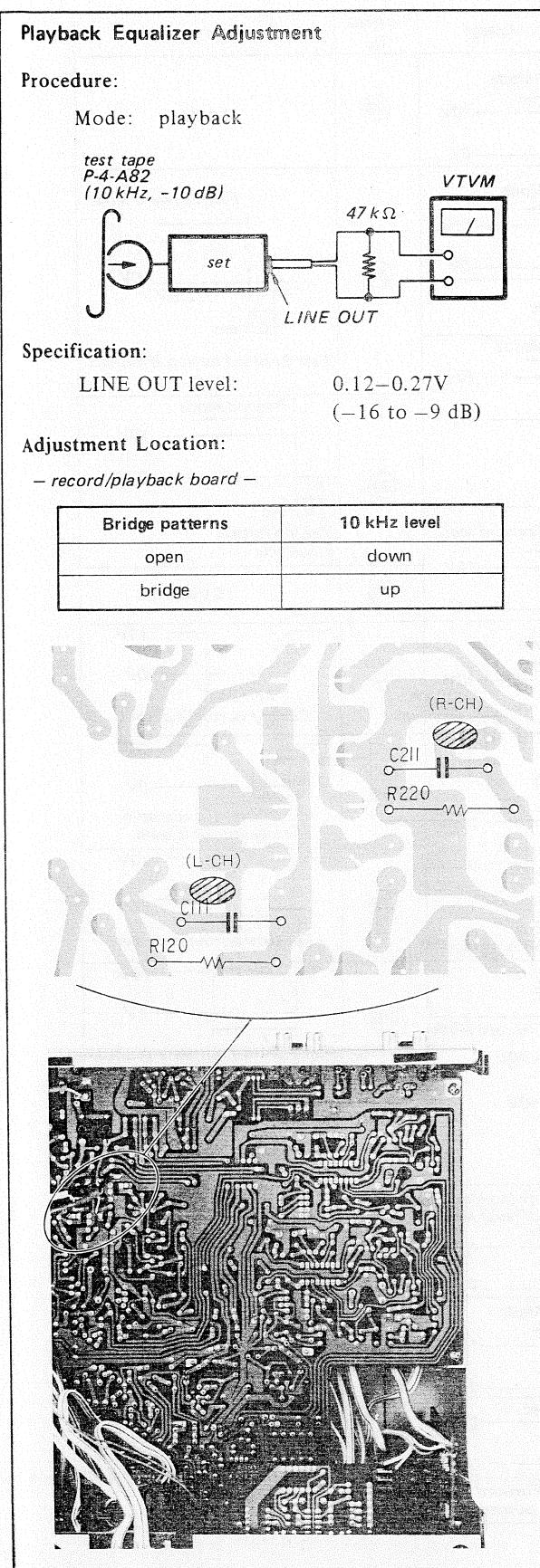
Level difference between channels:
less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location:

— record/playback board —



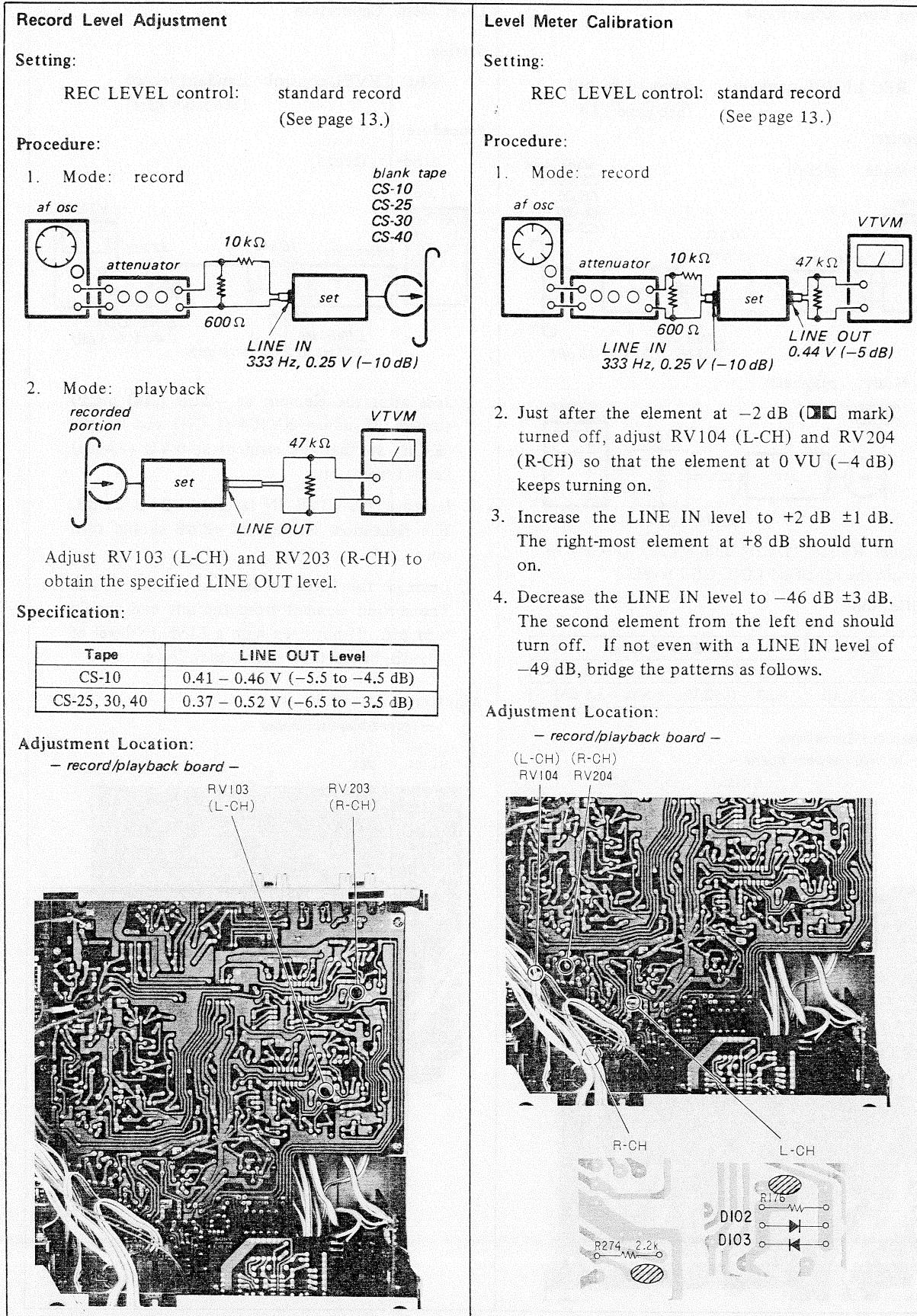


SECTION 4

DIAGRAMS

Voltages and Waveforms at the Terminals of IC801.

Terminal No.	Waveform or Voltage	Terminal No.	Waveform or Voltage	Terminal No.	Waveform or Voltage
①	9V p-p 3 μsec	⑭	Forward Mode 10V 0V	⑲	10 Vdc
②	• Forward Mode 10V p-p 0.7 sec	⑮	Record Mode 10V 0V	⑳	Fast Forward Mode 10V 0V -2.6V 0.3 sec.
③	10 Vdc 25 msec	⑯	Forward Mode 10V 0V	㉑	Rewind Mode 10V 0.3V
④	When pause button is pushed in forward mode: 10 Vdc • Tape End: 10 Vdc 0.5 sec	⑰	Forward button is pushed. Record/Forward Mode 6V p-p 8 msec	㉒	10 Vdc
⑤	10 Vdc to 6	⑲	Pause Mode 10V 0V	㉓	10V 0V Rewind button is pushed.
⑥	9V p-p 2.5 sec	㉐	10 Vdc	㉔	10V 0V Stop button is pushed or the cassette lid is open.
⑦	S17 (POWER): ON 9V p-p 0.5 sec	㉑	S17 (POWER): OFF 9V p-p	㉕	Record/Forward button is pushed. REC MUTE or Pause button is pushed. 10V 0V 0.6 sec
⑧	10V 3V Record button is pushed.	㉖	10 Vdc	㉖	10V 1V Fast Forward button is pushed.
⑨	10V 4V Pause button is pushed.	㉗	10 Vdc	㉗	• S13(MEMORY): ON 10V 0V Tape counter is at 999 in rewind mode.
⑩	10V 0V REC MUTE button is pushed.	㉘	10 Vdc	㉘	Fast Forward or Rewind Mode or Record/Forward/Pause Mode 10V 0V
⑪	10V 4V Forward or Record button is pushed.	㉙	10 Vdc	㉙	• S14(timer): PLAY 0V dc
⑫	10V 0V Forward or Record button is pushed.	㉚	10 Vdc	㉚	• S14 (timer): REC 0V dc
⑬	10 Vdc Fast Forward or Rewind Mode	㉛	10 Vdc	㉛	0 Vdc
⑭	10V 0V Forward or Fast Forward or Rewind button is pushed.	㉜	10 Vdc	㉜	3V p-p 3 μsec

The voltages in this chart are measured with a $10M\Omega$ oscilloscope w/probe.
(Therefore, the voltages given in this chart will differ from those given in the schematic or mounting diagram which are measured with a VOM.)

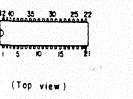
4-1. MOUNTING DIAGRAM —System Control Section—
—Conductor Side—

• Refer to page 17 for voltages and waveforms at the terminals of IC801.

• Replacement Semiconductors

For replacement, use semiconductors except in ().

IC801 : μPD547C-042

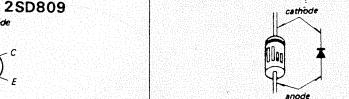


Q804, 1004, 1006 : 2SB731

Q805, 1003, 1005 : 2SD809

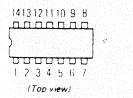
(letter side)

D810, 811 : HZ11B2L (HZ11B2)

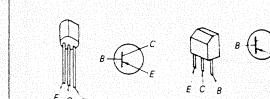


IC802 : MSM4069 (MB84069)

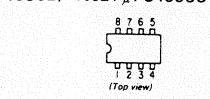
IC901 : μPC339C



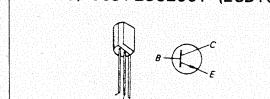
Q807 : 2SA684 (2SB734)



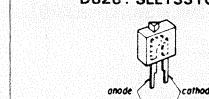
IC902, 1002 : μPC4558C (μPC4558)



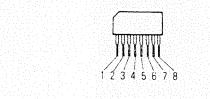
Q808, 809 : 2SC2001 (2SD1012)



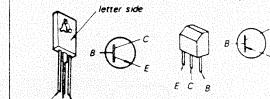
D828 : SEL1331G



IC1001, 1002 : CX069



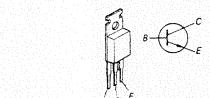
Q810 : 2SB731 (2SB564)



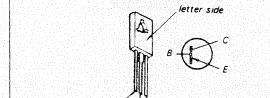
D829 : SEL1112R



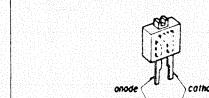
Q801 : 2SC1061 (2SC1419)



Q818 : 2SB548

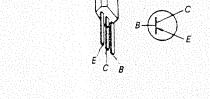


D830 : SEL1741Y

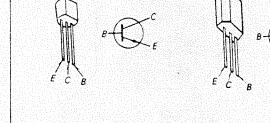


Q802, 811, 812, 821 : 2SA1015

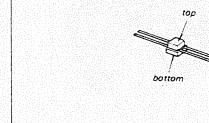
Q824 ~ 826 : 2SA1027R (2SA1026)



Q1001, 1002 : 2SC1364 (2SC634A)

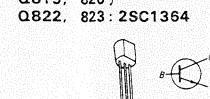


D1002, 1003 : F1410

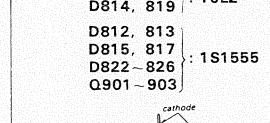


Q803, 806 : 2SC1364 (2SC1815)

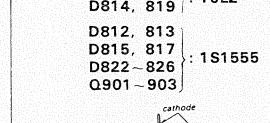
Q814 ~ 816 : 2SC1364 (2SC1815)



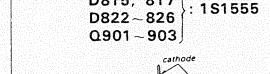
Q819, 820 : 2SC1364



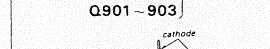
D801 ~ 809 : 10E2



D812, 813 : 1S1555



D822 ~ 826 : 1S1555



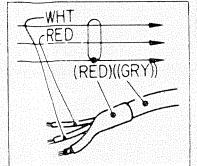
Q901 ~ 903 : 1S1555



• (F) : fusible resistor.

• (●) : B+ pattern

• (■) : B- pattern



• Readings are taken under no-signal conditions with a VOM (20 kΩ/V).

no mark: stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

▶▶ : Fast Forward

● : record

■ : pause

● : rec mute

■ : stop

▶ : Forward

A

B

C

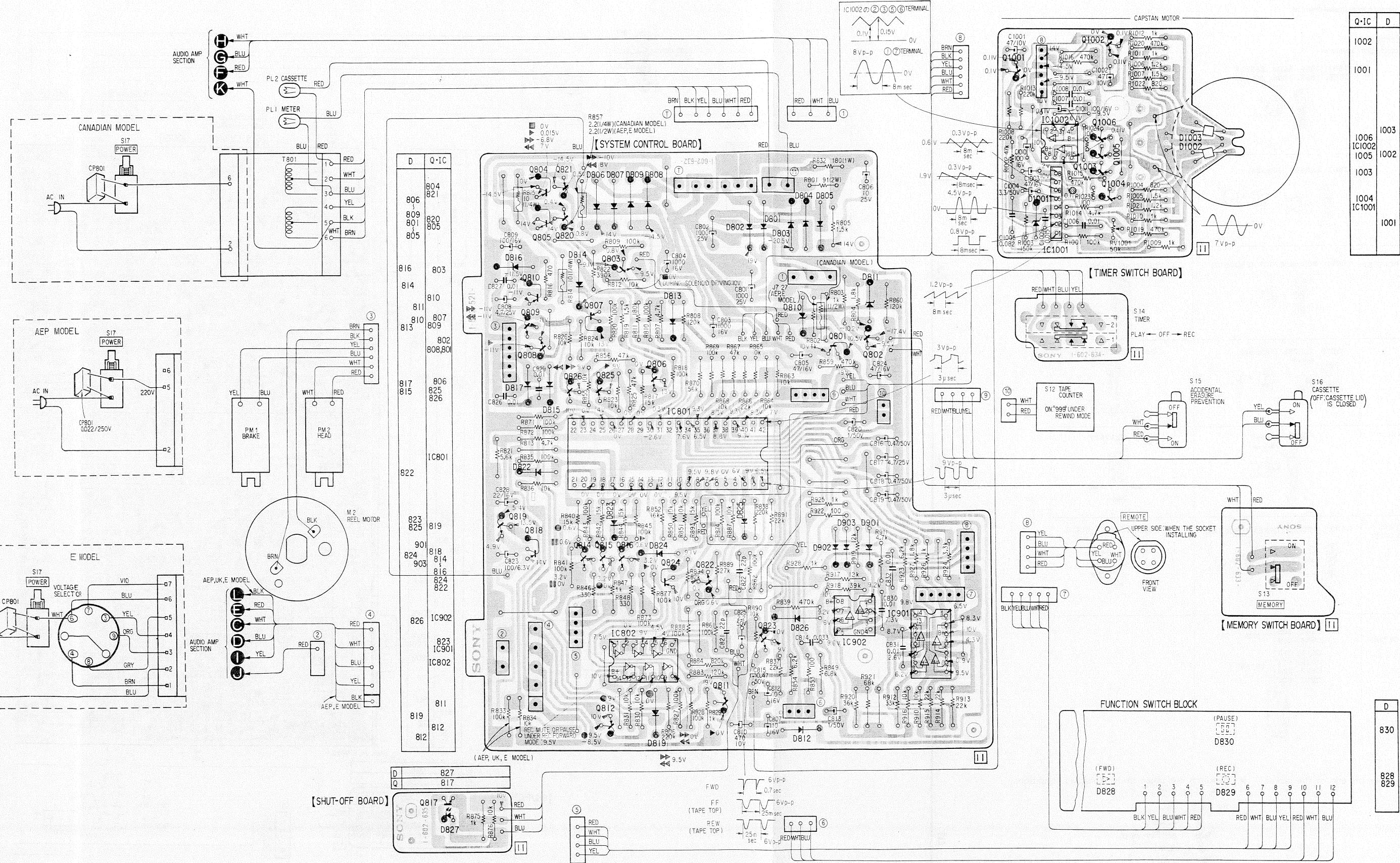
D

E

F

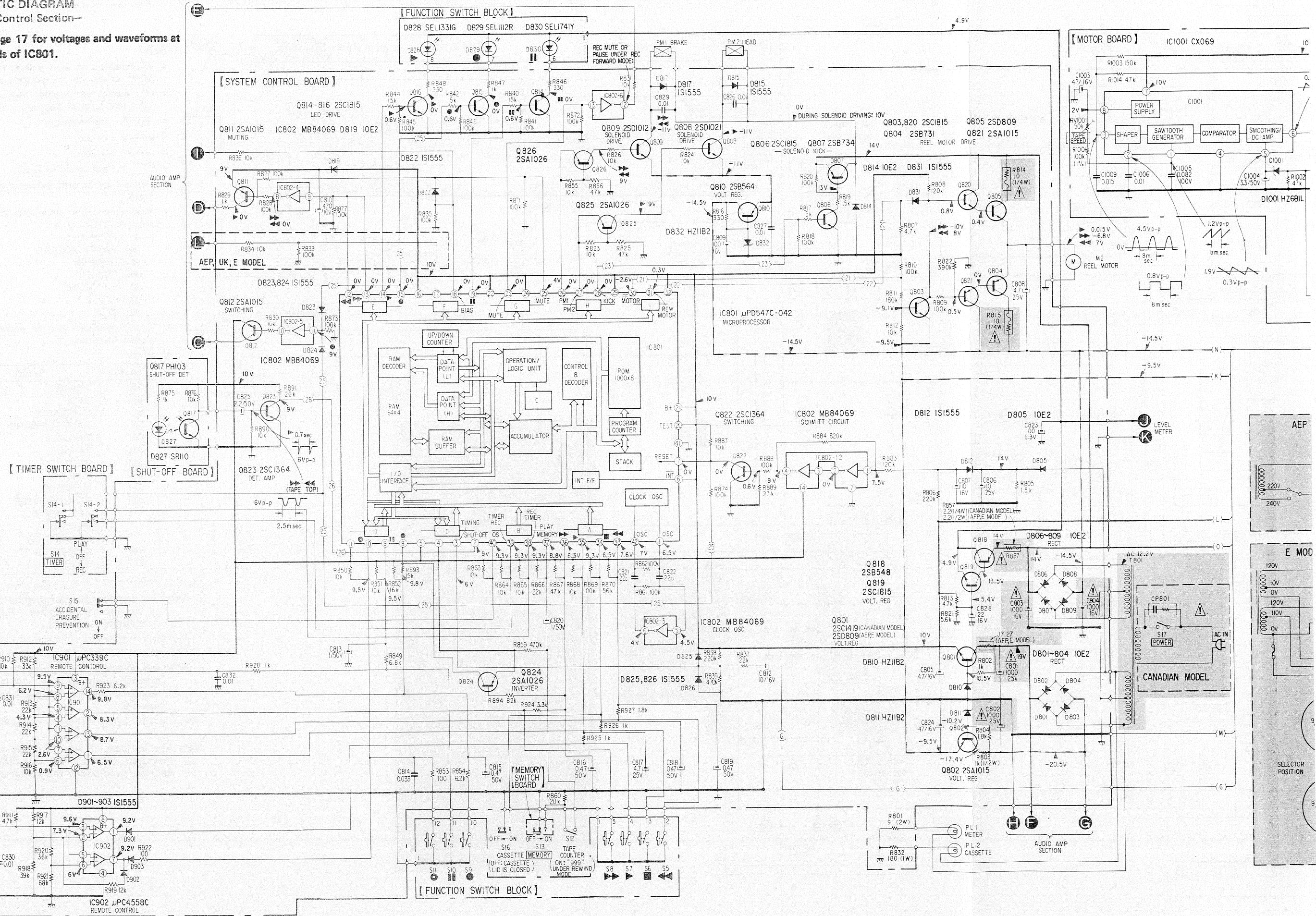
G

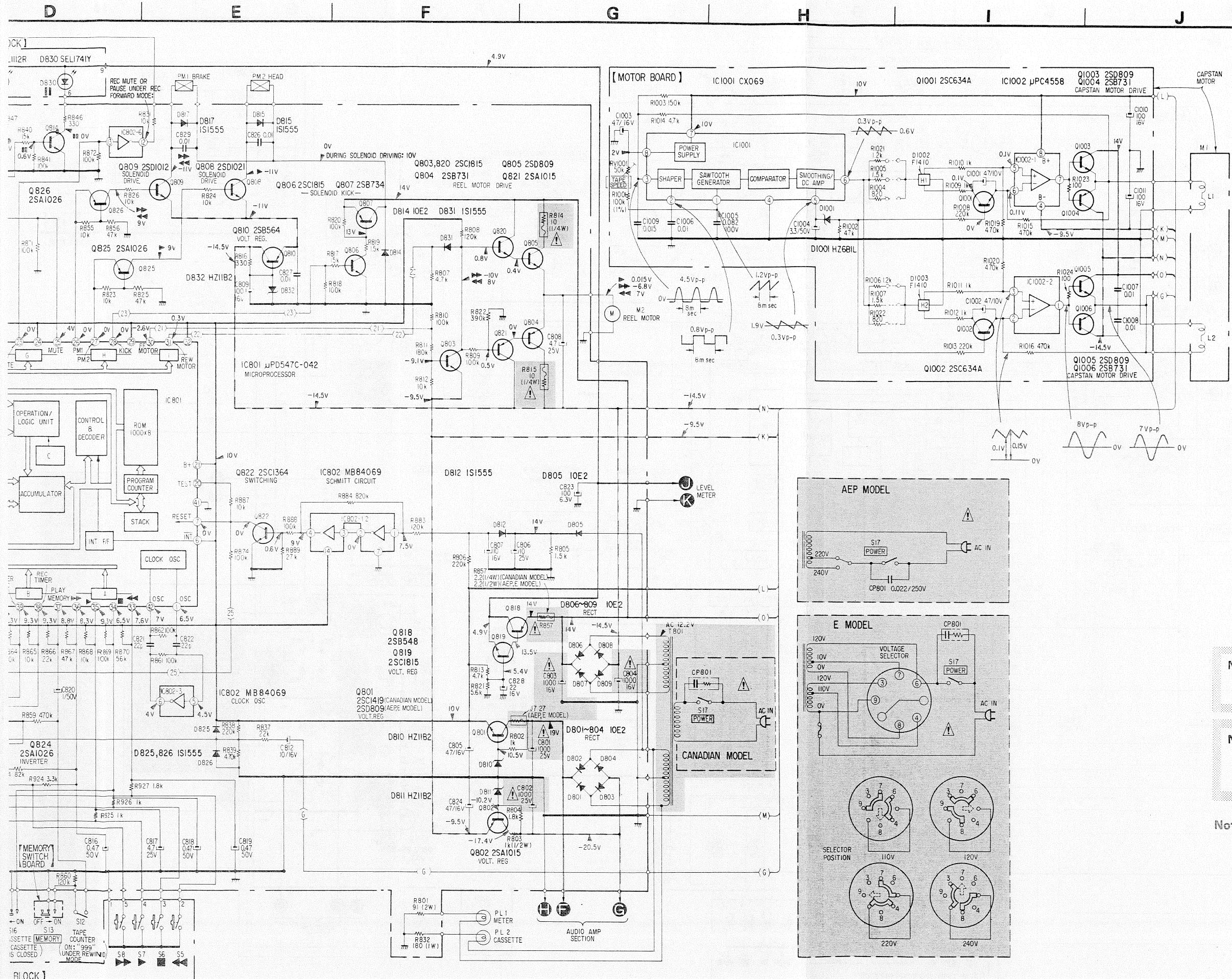
H



4-2. SCHEMATIC DIAGRAM —System Control Section—

- Refer to page 17 for voltages and waveforms at the terminals of IC801.



**Note:**

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $1/4\text{W}$ unless otherwise noted. $\text{k}\Omega = 1000 \Omega$, $\text{M}\Omega = 1000 \text{k}\Omega$.
- : fusible resistor.
- : B+ bus.
- : B- bus.
- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a VOM (20 $\text{k}\Omega/\text{V}$). no mark: STOP
- : FORWARD
- : FAST FORWARD
- : REWIND
- : RECORD
- : REC MUTE
- : PAUSE
- : STOP
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S5	REWIND	OFF
S6	STOP	OFF
S7	FORWARD	OFF
S8	FAST FORWARD	OFF
S9	RECORD	OFF
S10	PAUSE	OFF
S11	REC MUTE	OFF
S12	TIMER	OFF
S13	MEMORY	OFF
S14	TAPE COUNTER	OFF
S15	ACCIDENTAL ERASURE PREVENTION	OFF
S16	CASSETTE LID	ON
S17	POWER	OFF

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

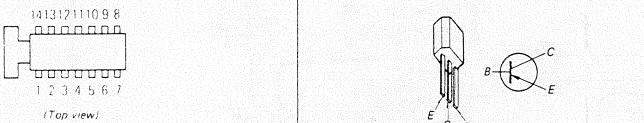
Note: Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note: The voltages at the terminals of IC801 are measured with a VOM and differs from the voltages given beside the waveform on page 17.

Replacement Semiconductors

For replacement, use semiconductors except in ().

IC101 : CX174

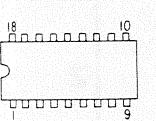


IC301 : μPC4558C (μPC4557C)

IC302 : μPC4558C



IC601 : MSL9351 (MSL9351RS)



Q101, 102 : 2SC1345 (2SC1345E)

Q201, 202 : 2SC1345

Q104, 204 : 2SC1345

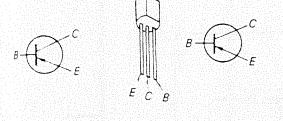
Q108, 208 : 2SC2001



Q103, 105

Q203, 205 : 2SA1027R (2SA844)

Q305, 306



Q312, 313

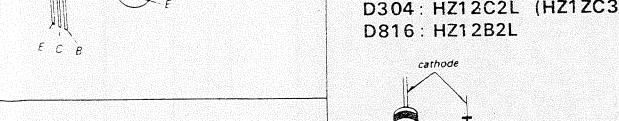
Q106, 107

Q109~111 : 2SC1364

Q206, 207

Q209~211

Q302, 303 : 2SC1364 (2SC458)



Q301 : 2SD414

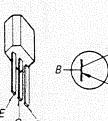
Q307 : 2SB548



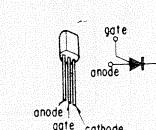
4-3. MOUNTING DIAGRAM – Audio Amp Section –

– Conductor Side –

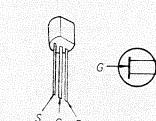
Q311 : 2SA1027R (2SA1026A)



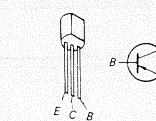
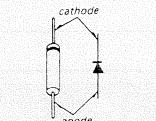
Q601 : N13T1



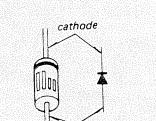
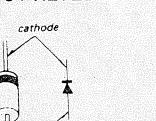
Q304, 308 : 2SK30A



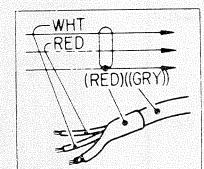
Q603~606 : 2SA952 (2SA952-K2)

D101~105
D201~205
D303, 305 : 1S1555
D307

D301, 302 : HZ6B2L (HZ6B1L)

D304 : HZ12C2L (HZ1ZC3L)
D816 : HZ12B2L

- Color code of sleeving over the end of the jacket.



- F : fusible resistor.
- : B+ pattern
- : B- pattern
- → : signal path
- → : L-CH signal path
- → : R-CH signal path
- Readings are taken under no-signal conditions with a VOM (20 kΩ/V).

no mark: stop

- ▶ : Forward
- ▶▶ : Fast Forward
- : record
- : pause
- : rec mute
- : stop

- AC voltage readings in the bias oscillator with a VTVM.

A

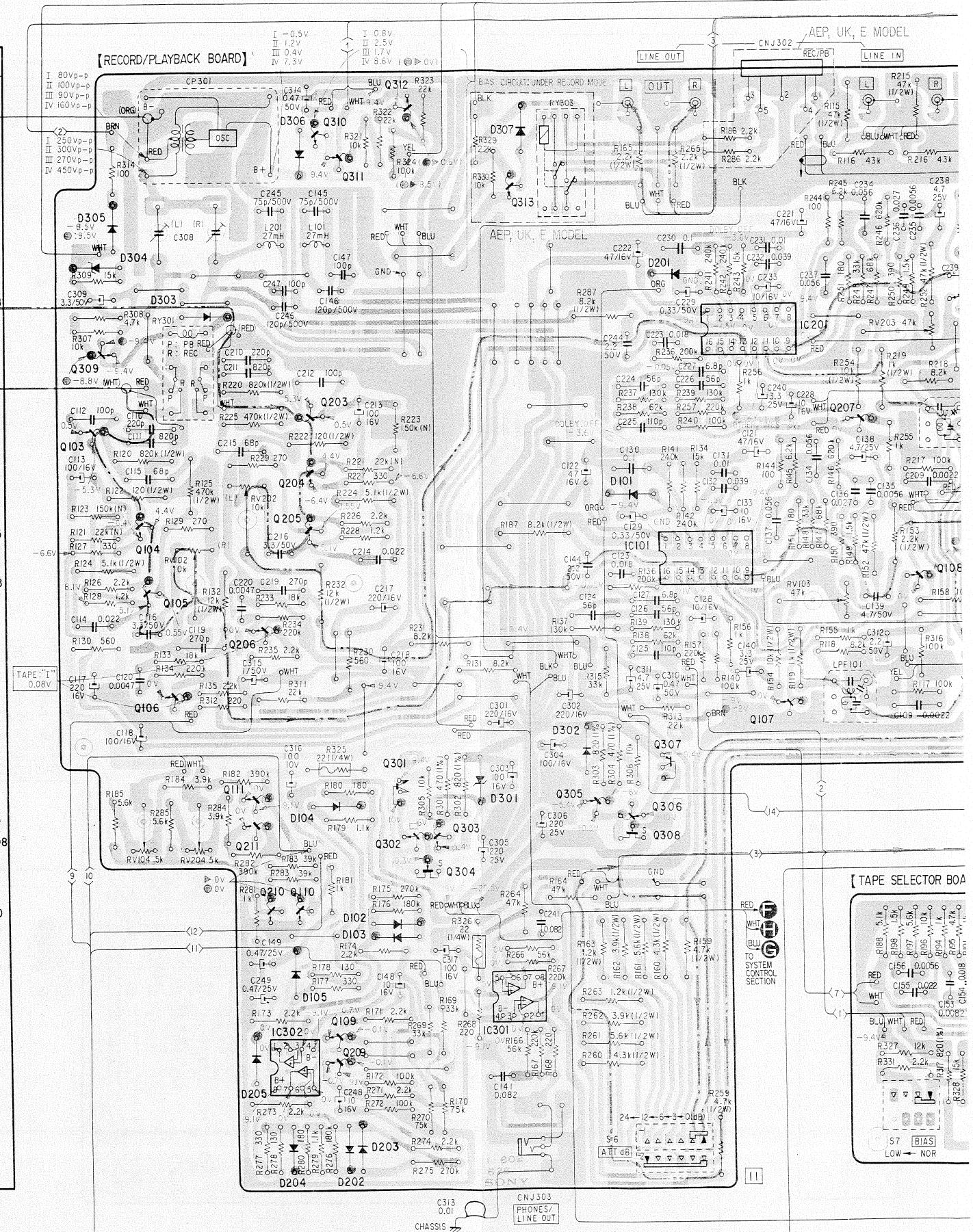
B

C

D

E

D	Q, IC
307	312
306	310
305	311
304	313
201	IC201
303	309
203	103
103	207
204	101
101	104
104	205
IC101	105
105	108
206	106
106	107
302	307
301	111
111	305
306	211
211	303, 308
303	304
102	210, 110
103	IC301
105	109
205	IC302
202	204



TC-K61 Limited Edition **TC-K61 Limited Edition**

A

B

C

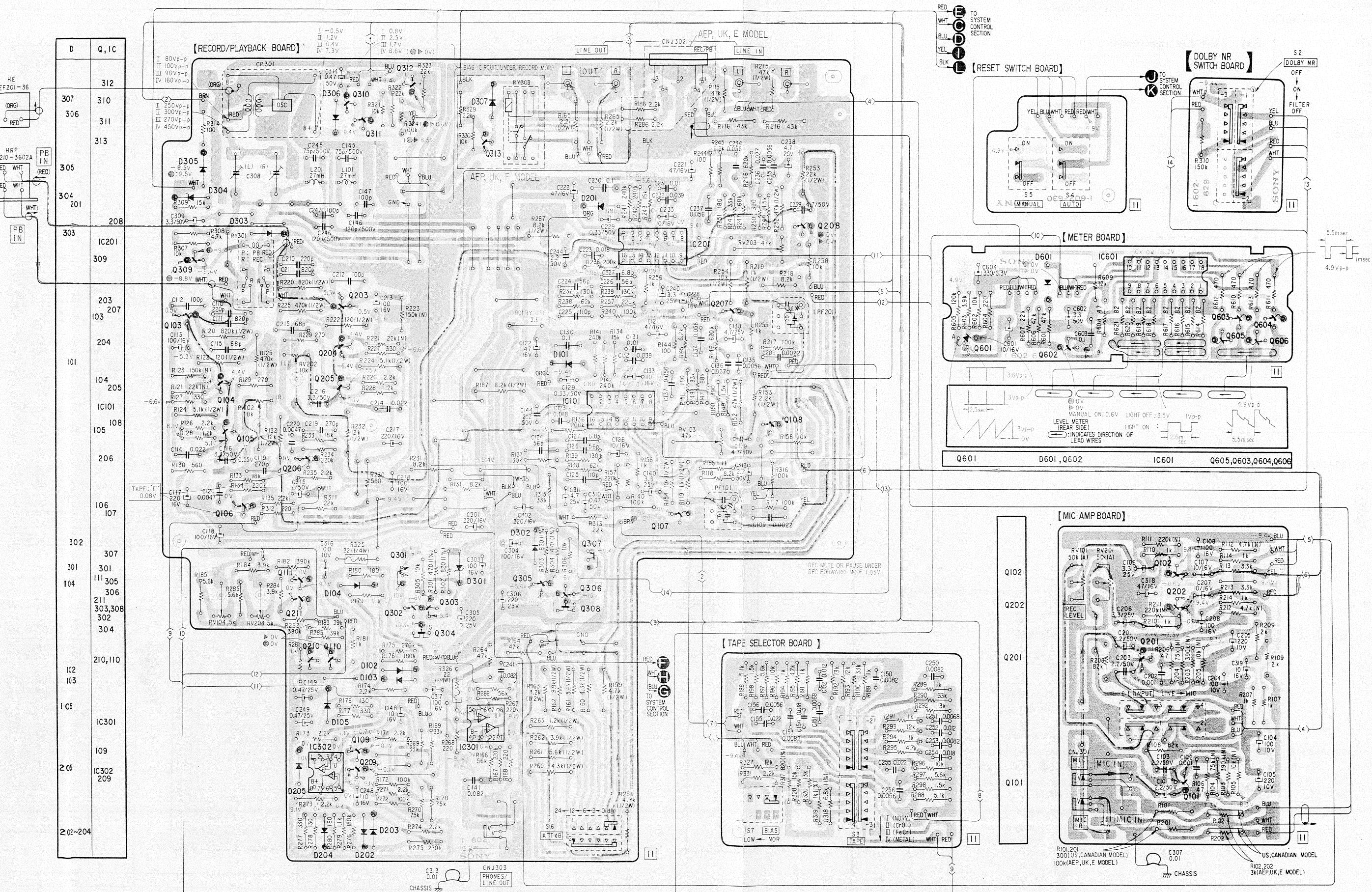
D

F

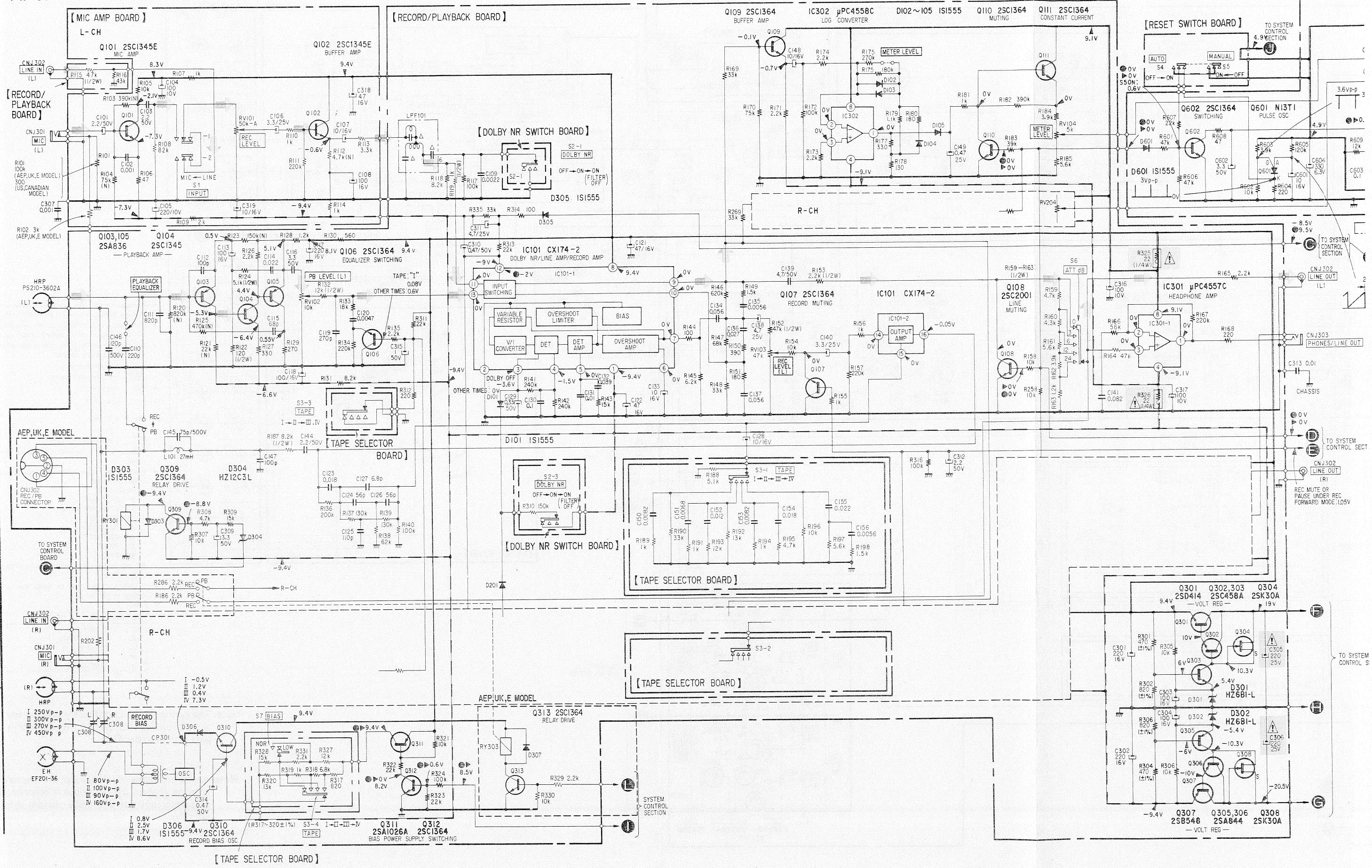
F

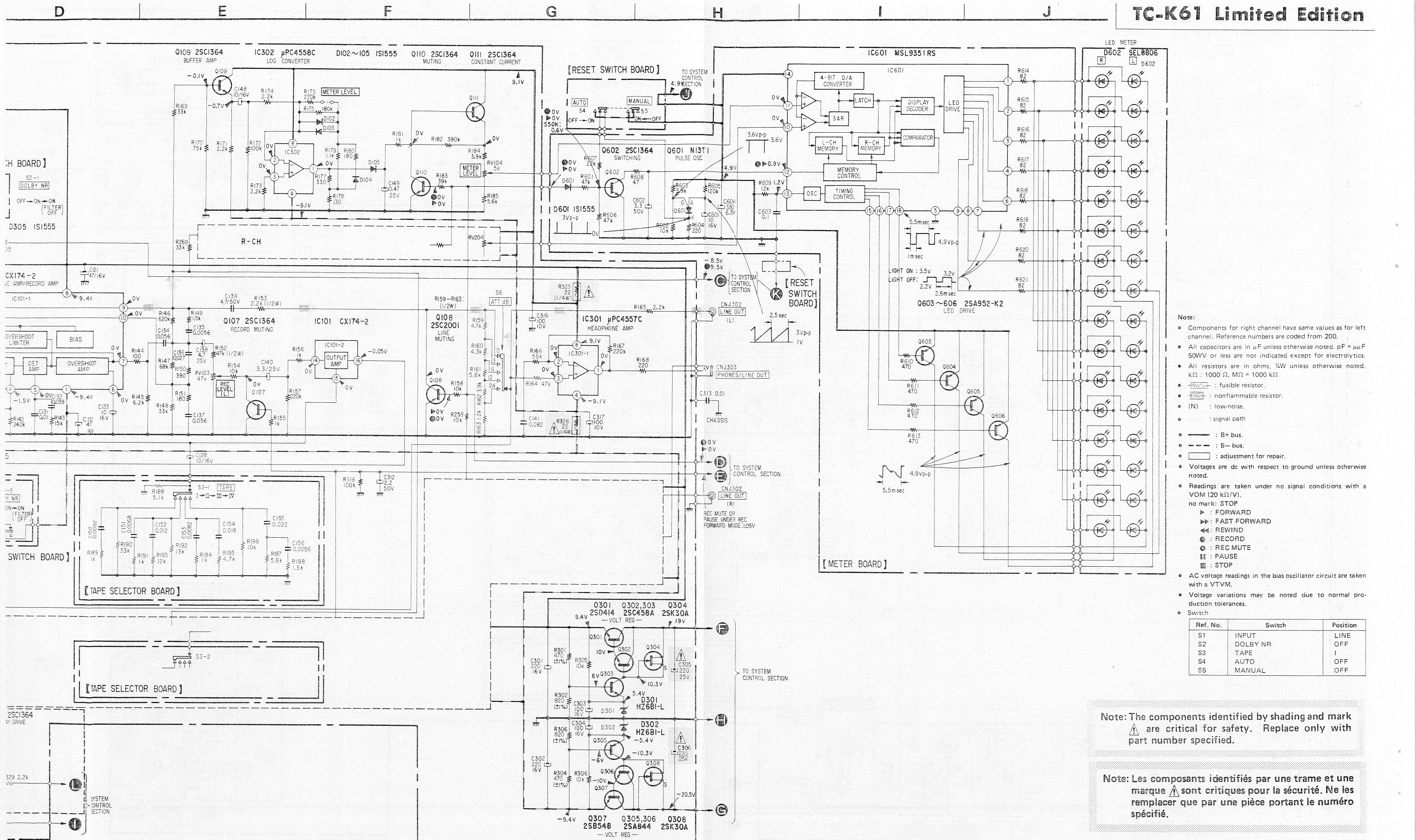
6

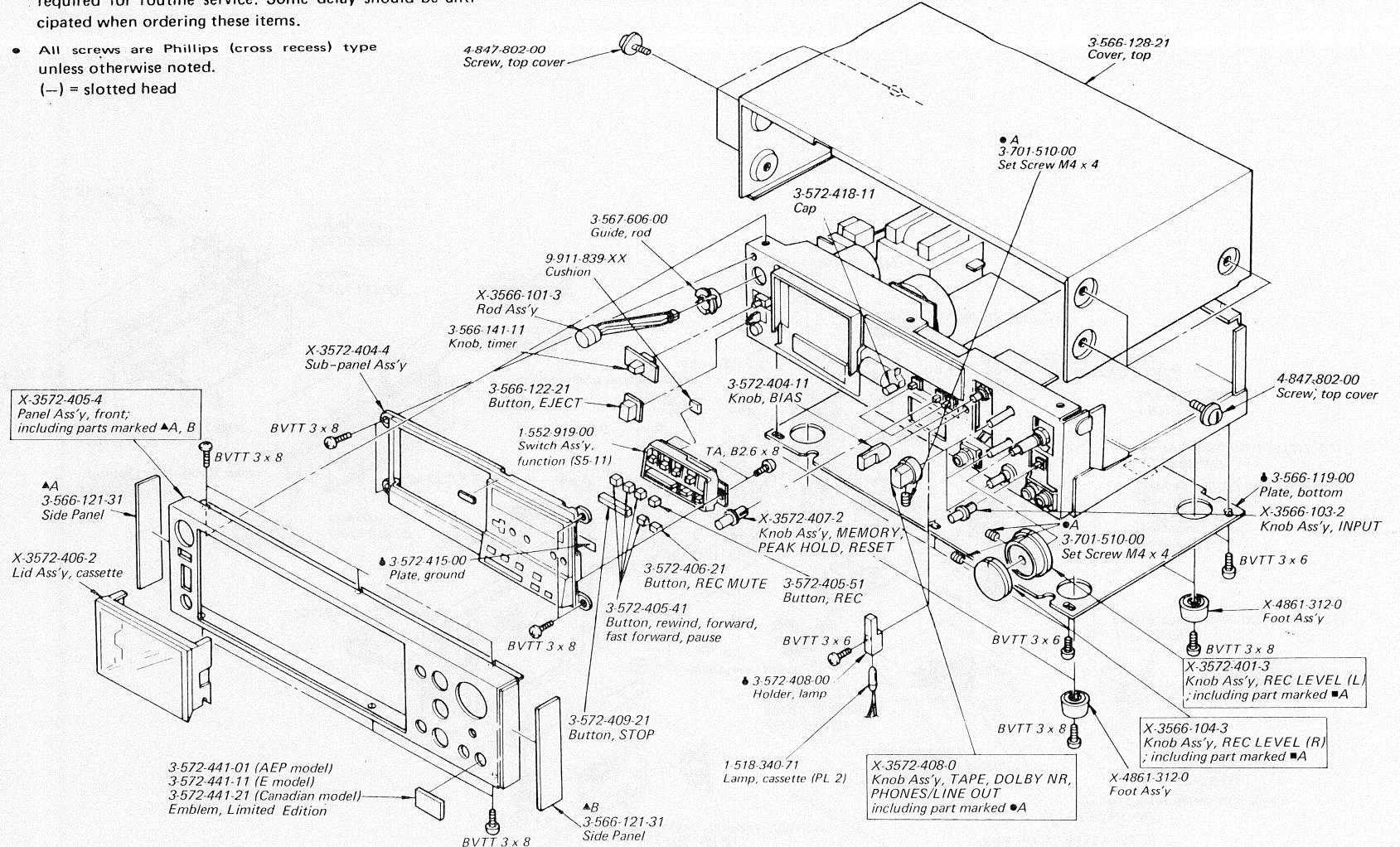
4



4-4. SCHEMATIC DIAGRAM — Audio Amp Section —

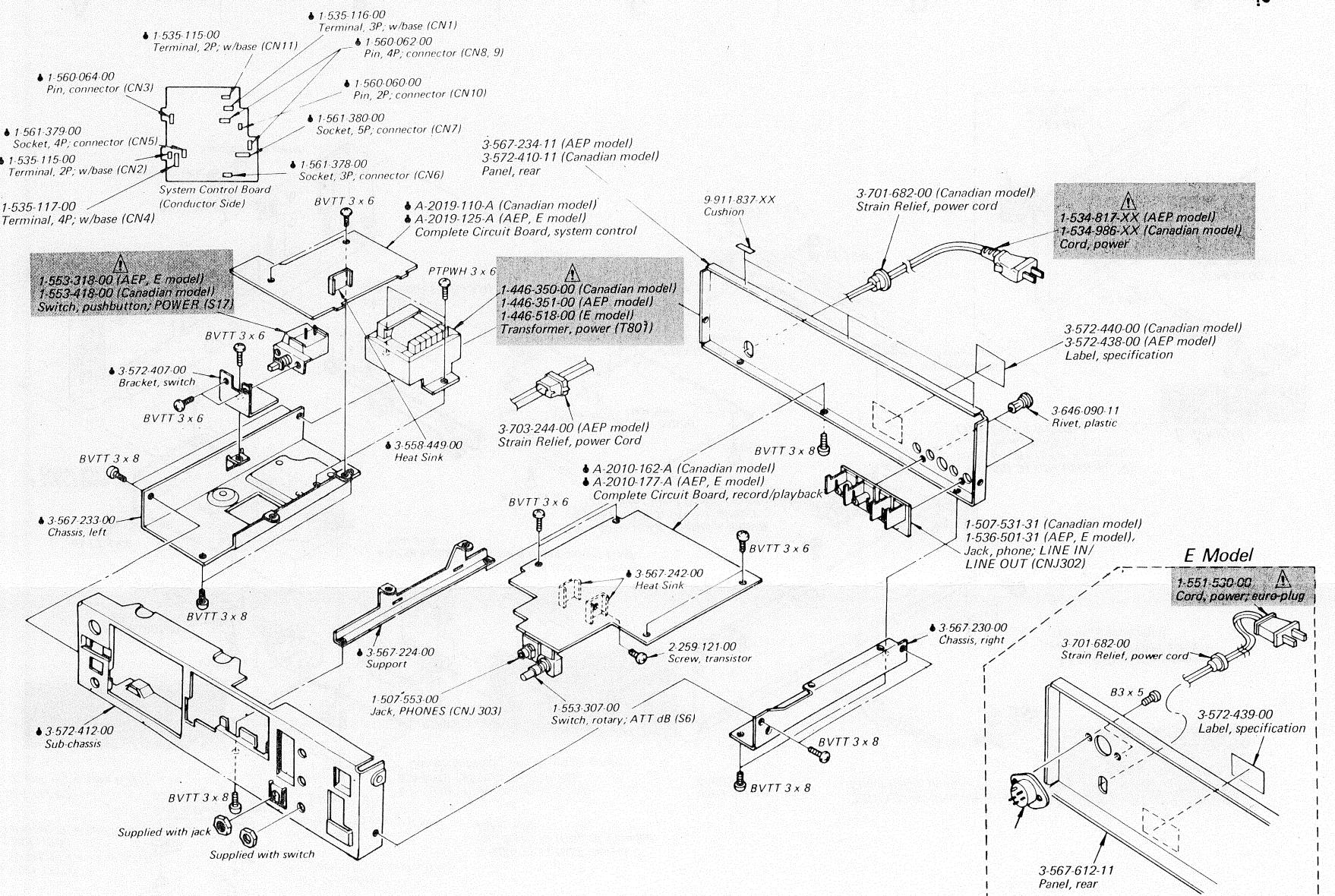




SECTION 5
EXPLODED VIEWS
1
2
3
-30-

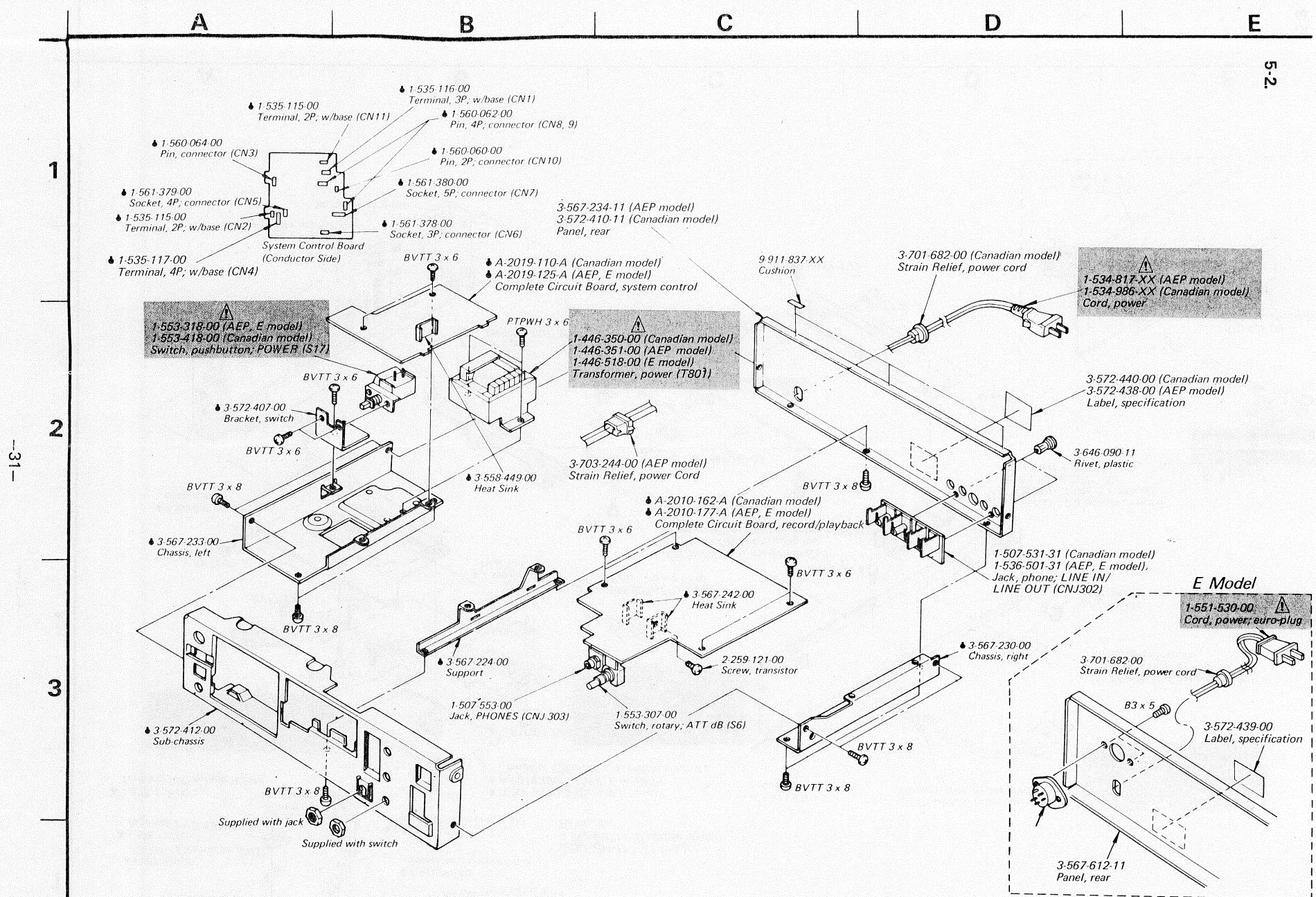
Note: The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

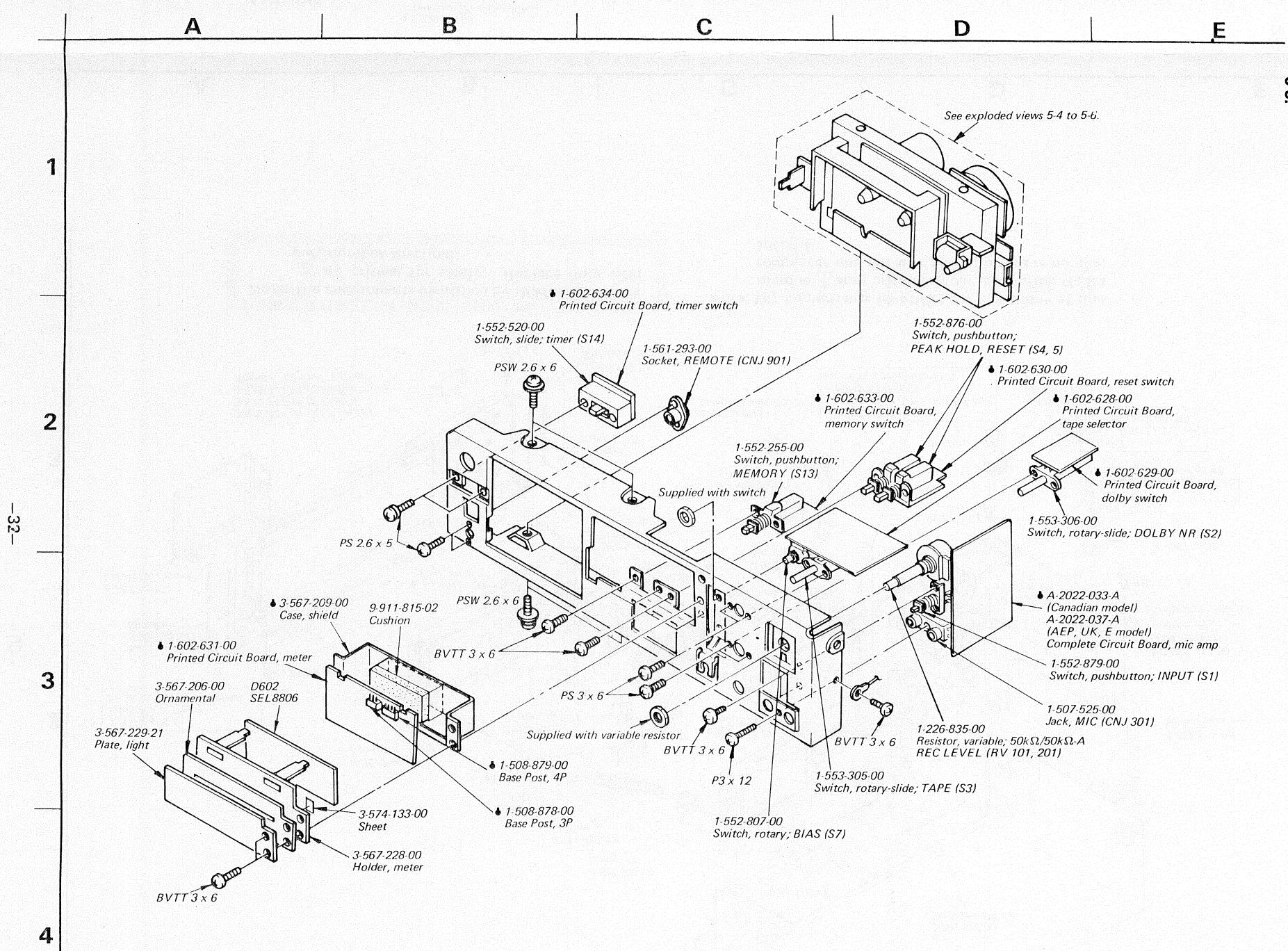
1
2
3
-31-A
B
C
D
E

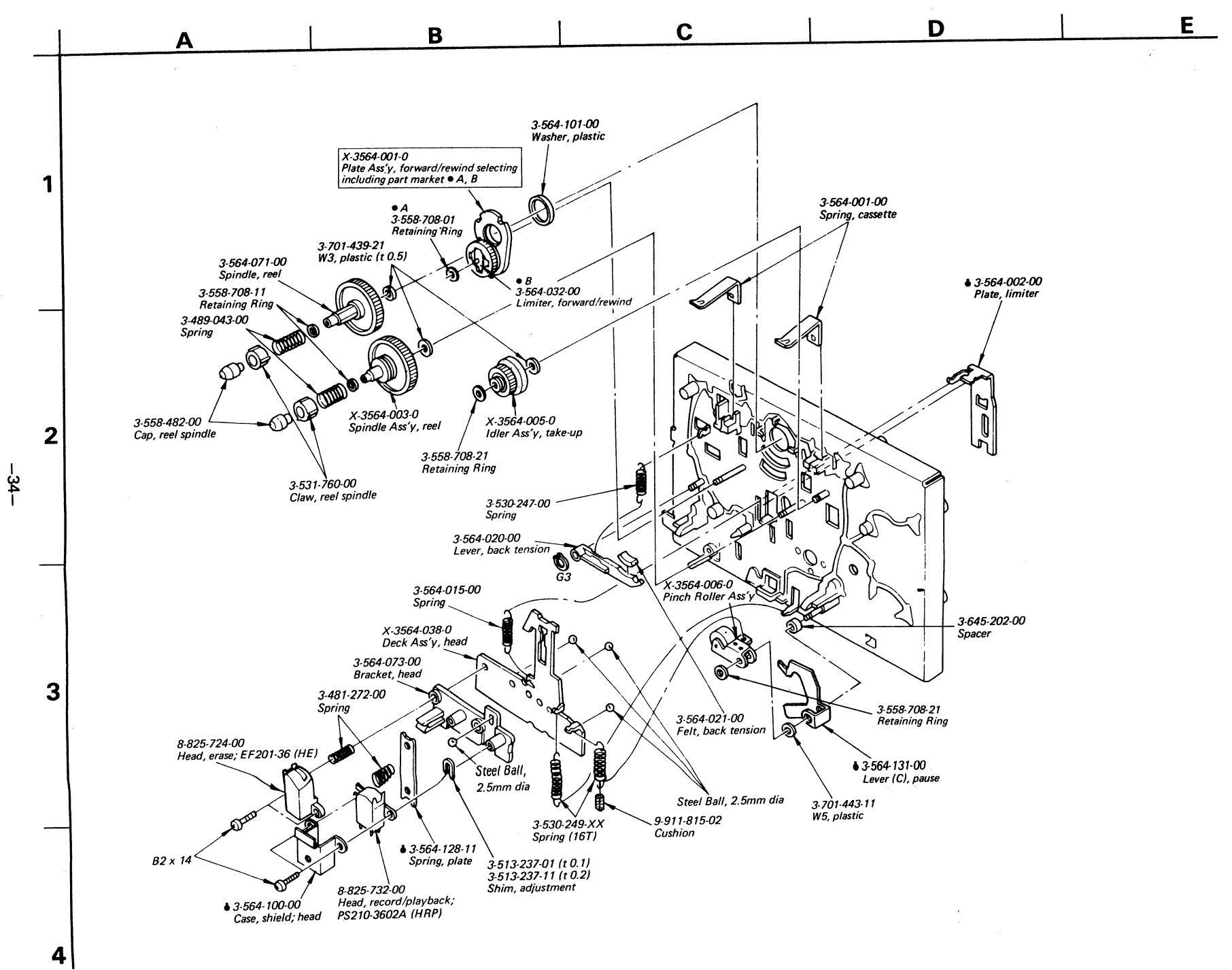
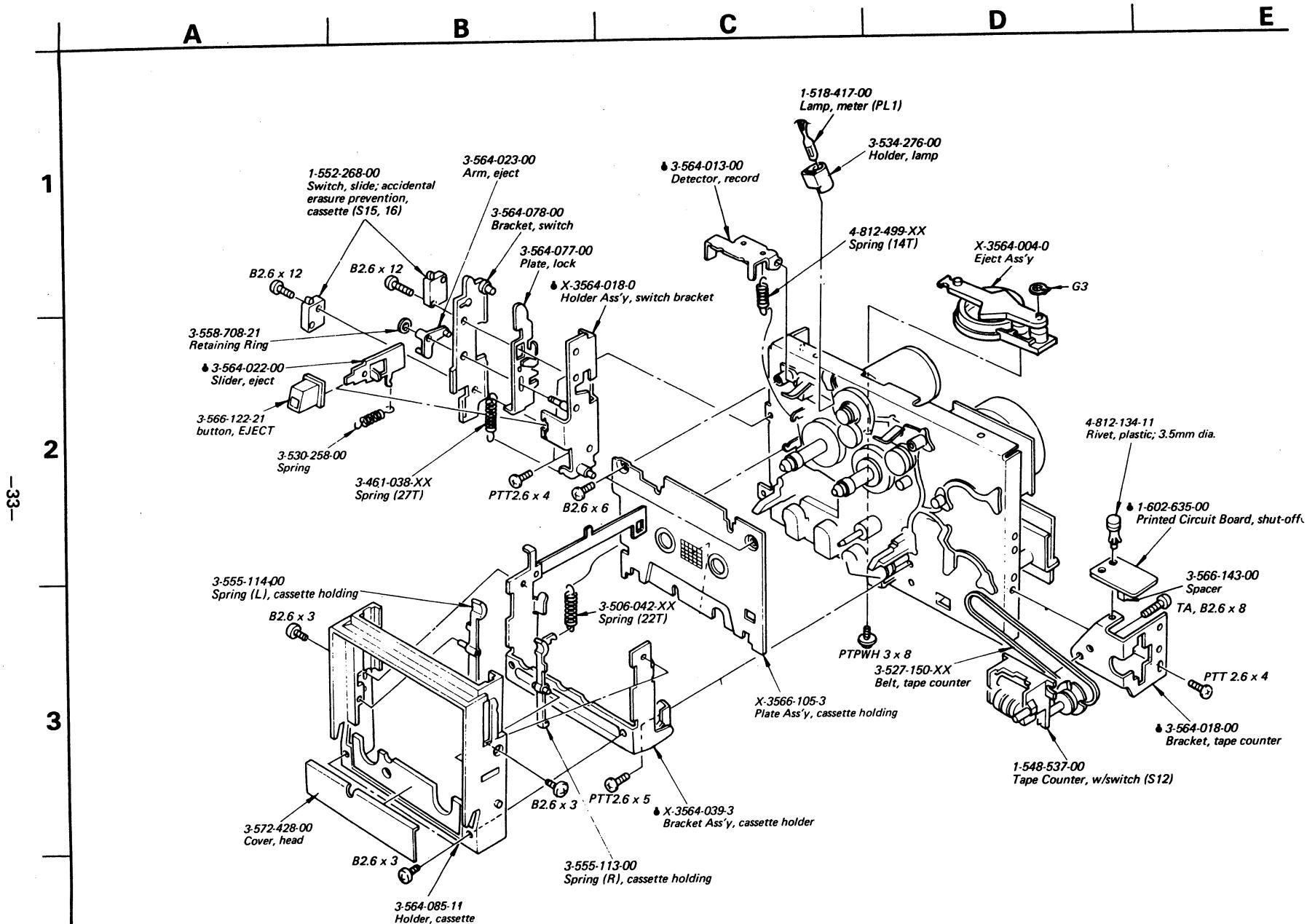
See exploded views 5-4 to 5-6.

5-2.



5-3.



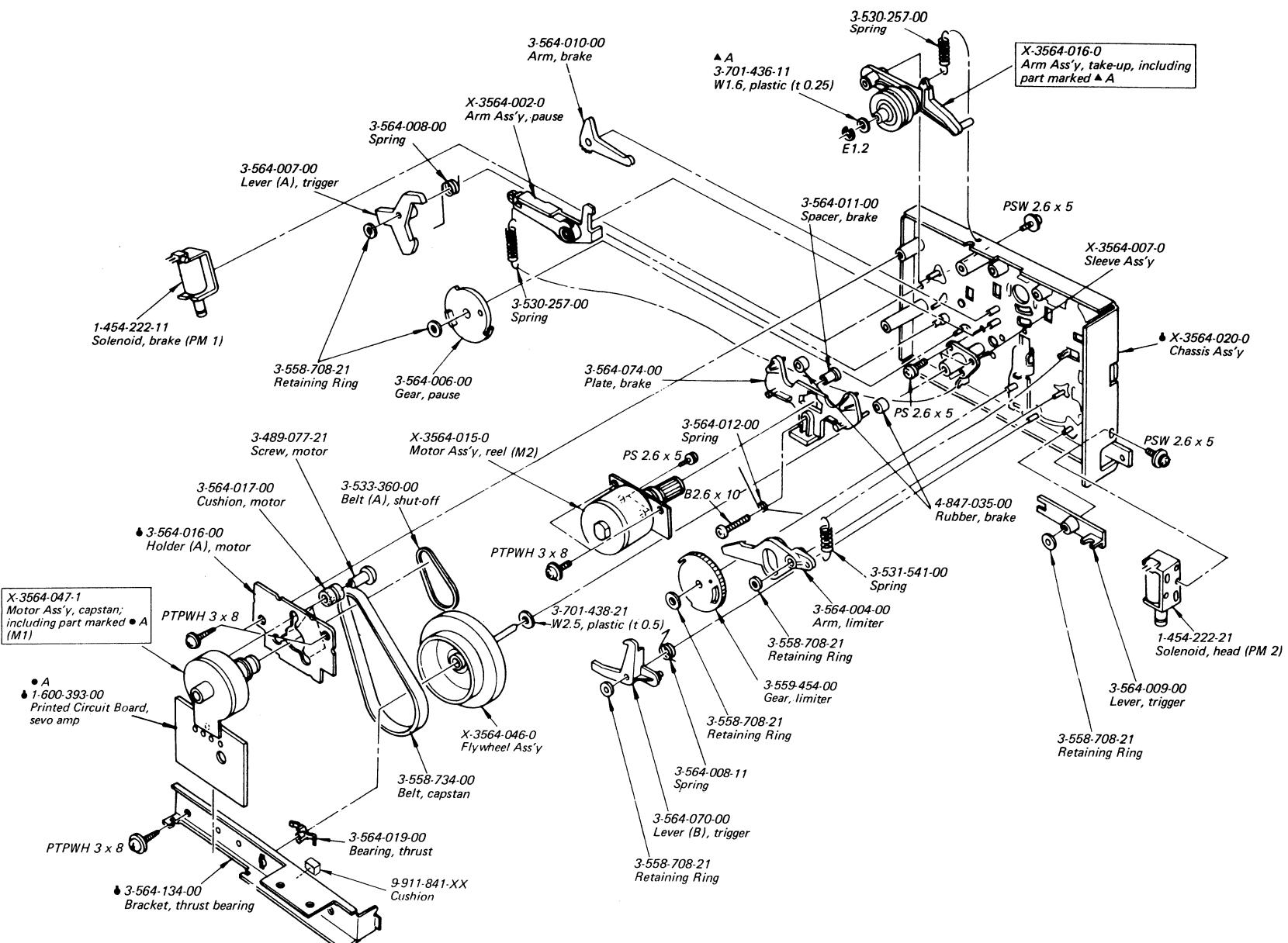


TC-K61 Limited Edition

ELECTRICAL PARTS LIST

SECTION 6

၁၃



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
		SEMICONDUCTORS
		Transistors
Q101, 102)	8-729-334-58	2SC1345
Q201, 202)	8-729-612-77	2SA1027R
Q103, 203	8-729-612-77	2SA1027R
Q104, 204	8-729-334-58	2SC1345
Q105, 205	8-729-612-77	2SA1027R
Q106, 107)	8-729-663-47	2SC1364
Q108, 208	8-729-100-13	2SC2001
Q109-111)	8-729-663-47	2SC1364
Q209-211)	8-729-663-47	2SC1364
Q301	8-729-141-43	2SD414
Q302, 303	8-729-663-47	2SC1364
Q304	8-729-203-04	2SK30A
Q305, 306	8-729-612-77	2SA1027R
Q307	8-729-154-83	2SB548
Q308	8-729-203-04	2SK30A
Q309, 310	8-729-663-47	2SC1364
Q311	8-729-612-77	2SA1027R
Q312	8-729-663-47	2SC1364
Q313	8-729-663-47	2SC1364 (AEP, E model)
Q601	8-729-101-31	N13T1
Q602	8-729-663-47	2SC1364
Q603-606	8-729-195-23	2SA952
Q801	(8-729-316-12 model)	2SD809 (AEP, E model)
Q802		2SC1061 (Canadian model)
Q803	8-729-663-47	2SC1364
Q804	8-729-173-13	2SB731
Q805	8-729-180-93	2SD809
Q806	8-729-663-47	2SC1364
Q807	8-729-468-43	2SA684
Q808, 809	8-729-100-13	2SC2001
Q810	8-729-173-13	2SB731
Q811, 812	8-729-201-52	2SA1015
Q814-816	8-729-663-47	2SC1364
Q817	8-729-101-13	PH103
Q818	8-729-154-83	2SB548
		ICs
Q822, 823	8-729-663-47	2SC1364
Q824-826	8-729-612-77	2SA1027R
Q1001, 1002	8-729-663-47	2SC1364
Q1003	8-729-180-93	2SD809
Q1004	8-729-173-13	2SB731
Q1005	8-729-180-93	2SD809
Q1006	8-729-173-13	2SB731
		Diodes
D101-105)	8-719-815-55	1S1555
D201-205)	8-719-815-55	HZ6B2L
D301, 302	8-719-910-65	1S1555
D303	8-719-815-55	HZ12C2L
D304	8-719-910-28	1S1555
D305, 306	8-719-815-55	HZ11B2L
D307	8-719-815-55	1S1555 (AEP, E model)
D601	8-719-815-55	1S1555
D602	1-800-822-11	SEL8806
D801-809	8-719-900-02	10E2
D810, 811	8-719-910-15	HZ11B2L
D812, 813	8-719-815-55	1S1555
D814	8-719-200-02	10E2
D815	8-719-815-55	1S1555
D816	8-719-910-25	HZ12B2L
D817	8-719-815-55	1S1555

- Items marked "D" are not stocked since they are seldom

ROUTINE MAINTENANCE Items are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TC-K61 Limited Edition

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
D819	8-719-200-02	10E2
D822-826	8-715-815-55	IS1555
D827	8-719-101-11	SR110
D828	8-719-313-31	SEL1331G
D829	8-719-311-12	SEL1112R
D830	8-719-317-41	SEL1741Y
D901-903	8-719-815-55	IS1555
D1001	8-719-910-65	HZ6B2L
D1002,1003	8-719-841-01	F1410
CAPACITORS		
All capacitors are in μ F. Common capacitors are omitted. Refer to the lists on pages 40 and 41 for their part numbers. elect: electrolytic		
C103, 203	1-123-230-00	2.2 50V elect (bipolar)
C144, 244	1-123-230-00	0.022 100V film
C114, 214	1-130-305-00	3.3 50V elect (bipolar)
C116, 216	1-123-231-00	4.7 50V elect (bipolar)
C139, 239	1-123-232-00	220 25V elect
C305, 306	△1-121-422-00	1-141-225-00 Trimmer, record bias
C601	1-121-651-00	10 16V elect
C801, 802	△1-121-657-00	1000 25V elect
C803, 804	△1-123-324-00	1000 16V elect
RESISTORS		
All resistors are in ohms. Common $\frac{1}{2}$ W carbon resistors are omitted. Refer to the list on the last page for their part numbers.		
R115, 215	1-244-913-00	47k $\frac{1}{2}$ W carbon
R119, 219	1-244-873-00	1k $\frac{1}{2}$ W carbon
R120, 220	1-244-943-00	820k $\frac{1}{2}$ W carbon
R122, 222	1-244-851-00	120 $\frac{1}{2}$ W carbon
R124, 224	1-244-890-00	5.1k $\frac{1}{2}$ W carbon
R125, 225	1-244-937-00	470k $\frac{1}{2}$ W carbon
R132, 232	1-244-899-00	12k $\frac{1}{2}$ W carbon
R152, 252	1-244-913-00	47k $\frac{1}{2}$ W carbon
R153, 253	1-244-881-00	2.2k $\frac{1}{2}$ W carbon
R154, 254	1-244-897-00	10k $\frac{1}{2}$ W carbon
R159, 259	1-244-889-00	4.7k $\frac{1}{2}$ W carbon
R160, 260	1-244-888-00	4.3k $\frac{1}{2}$ W carbon

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
R161, 261	1-244-891-00	5.6k $\frac{1}{2}$ W carbon	CN8, 9	● 1-560-062-00	Pin, 4P; connector	S13	1-552-255-00	Switch, pushbutton; MEMORY	S14	1-552-520-00	Switch, slide; timer
R162, 262	1-244-887-00	3.9k $\frac{1}{2}$ W carbon	CN10	● 1-560-060-00	Pin, 2P; connector	S15, 16	1-552-268-00	Switch, slide; accidental erasure prevention, cassette		1-553-318-00	Switch, pushbutton; POWER (AEP, E model)
R163, 263	1-244-875-00	1.2k $\frac{1}{2}$ W carbon	CN11	● 1-535-115-00	Terminal, 2P; w/base	S17	1-553-418-00	Switch, pushbutton; POWER (Canadian model)			
R165, 265	1-244-881-00	2.2k $\frac{1}{2}$ W carbon	CN1001	● 1-560-064-00	Pin, connector		1-553-418-00	Switch, pushbutton; POWER (Canadian model)			
R187, 287	1-244-895-00	8.2k $\frac{1}{2}$ W carbon	CNJ301	1-507-525-00	Jack, MIC	T801	1-446-350-00	Transformer, power (Canadian model)			
R301, 304	1-214-721-00	470 $\frac{1}{4}$ W metal-oxide (1%)	CNJ302	1-536-501-31	Jack, phono, 4P; LINE IN/ LINE OUT (Canadian model)		1-446-351-00	Transformer, power (AEP model)			
R302, 303	1-214-727-00	820 $\frac{1}{4}$ W metal-oxide (1%)	CNJ303	1-507-553-00	Jack, phono, 4P; LINE IN/ LINE OUT (AEP, E model)		1-446-518-00	Transformer, power (E model)			
R317	1-214-749-00	6.8k $\frac{1}{4}$ W metal-oxide (1%)	CNJ901	1-561-293-00	Socket, REMOTE		● 1-508-878-00	Base Post, 3P			
R318	1-214-729-00	1k $\frac{1}{4}$ W metal-oxide (1%)	CP301	1-464-110-00	Unit, bias osc		● 1-508-879-00	Base Post, 4P			
R320	1-214-756-00	13k $\frac{1}{4}$ W metal-oxide (1%)	CP801	1-231-341-00	Encapsulated Component (Canadian, E model)		△ 1-526-576-21	Voltage Selector (E model)			
R325, 326	△ 1-212-865-00	22 $\frac{1}{4}$ W fusible	CP801	1-130-456-00	Capacitor, film; 0.022 μ F 250V (AEP model)		△ 1-534-817-XX	Cord, power (AEP model)			
R801	1-206-486-00	91 2W metal-oxide (nonflammable)	HE	8-825-724-00	Head, erase; EF201-36		△ 1-534-986-XX	Cord, power (Canadian model)			
R803	1-244-873-00	1k $\frac{1}{2}$ W carbon	HRP	8-825-732-00	Head, record/playback; PS210-3602A		△ 1-551-530-00	Cord, power; euro plug (E model)			
R814, 815	△ 1-212-857-00	10 $\frac{1}{4}$ W fusible	J7	△ 1-212-867-00	Resistor, fusible 27 Ω , $\frac{1}{4}$ W (AEP, E model)						
R832	1-213-134-00	180 1W metal-oxide (nonflammable)	L101, 201	1-408-262-00	microinductor, 27mH						
R857	△ 1-212-942-00	2.2 $\frac{1}{2}$ W fusible (AEP, E model)	LPF101, 201	1-231-388-00	Filter, low-pass						
	△ 1-217-379-00	2.2 $\frac{1}{4}$ W fusible (Canadian model)	M1	X-3564-047-1	Motor Ass'y, capstan						
R1001	1-214-777-00	100k $\frac{1}{4}$ W metal-oxide (1%)	M2	X-3564-015-0	Motor Ass'y, reel						
RV101, 201	1-226-835-00	50k/50k-A, variable; REC LEVEL	PL1	1-518-417-00	Lamp, meter						
RV102, 202	1-224-645-XX	10k-B, adjustable; playback level	PL2	1-518-340-71	Lamp, cassette						
RV103, 203	1-224-647-XX	47k-B, adjustable; record level	PM1	1-454-222-11	Solenoid, brake						
RV104, 204	1-226-235-00	5k-B, adjustable; level meter	PM2	1-454-222-21	Solenoid, head						
RV1001	1-224-661-00	50k-B, adjustable; tape speed	RY301	1-515-323-00	Relay						
MISCELLANEOUS			RY303	1-515-297-00	Relay, reed (AEP, E model)						
CN1	● 1-535-116-00	Terminal, 3P; w/base	S1	1-552-879-00	Switch, pushbutton; INPUT						
CN2	● 1-535-115-00	Terminal, 2P; w/base	S2	1-553-306-00	Switch, rotary-slide; DOLBY NR						
CN3	● 1-560-064-00	Pin, connector	S3	1-553-305-00	Switch, rotary-slide; TAPE						
CN4	● 1-535-117-00	Terminal, 4P; w/base (Canadian model)	S4, 5	1-552-876-00	Switch, pushbutton; PEAK HOLD, RESET						
	● 1-535-118-00	Terminal, 5P; w/base (AEP, E model)	S6	1-553-307-00	Switch, rotary; ATT dB						
CN5	● 1-561-379-00	Socket, 4P; connector	S7	1-552-807-00	Switch, rotary; BIAS						
CN6	● 1-561-378-00	Socket, 3P; connector	S5-11	1-552-919-00	Switch Ass'y, function including:						
CN7	● 1-561-380-00	Socket, 5P; connector		1-553-235-00	1-553-235-00						
			S12	1-548-537-00	Switch, keyboard						
					Tape Counter, w/switch						

Complete Circuit Boards

- A-2010-162-A Record/playback (Canadian model)
- A-2010-177-A Record/playback (AEP, E model)
- A-2019-110-A System Control (Canadian model)
- A-2019-125-A System Control (AEP, E model)
- A-2022-033-A Mic Amp (Canadian model)
- A-2022-037-A Mic Amp (AEP, E model)

Printed Circuit Boards

- 1-600-393-00 Servo Amp
- 1-602-628-00 Tape Selector
- 1-602-629-00 Dolby Switch
- 1-602-630-00 Reset Switch
- 1-602-631-00 Meter
- 1-602-633-00 Memory Switch
- 1-602-634-00 Timer Switch
- 1-602-635-00 Shut-off

TC-K61 Limited Edition

TC-K61 Limited Edition

ACCESSORIES AND PACKING MATERIALS	
Part No.	Description
X-3701-105-0	Tip Ass'y, head cleaning
1-551-734-11	Cord, connecting; RK-74A
3-566-148-00	Cushion, upper; front
3-566-149-00	Cushion upper; back
3-566-150-00	Cushion, lower; right
3-566-151-00	Cushion, lower; left
3-572-442-00	Carton
3-701-630-00	Bag, plastic
3-783-351-11	Manual, instruction (AEP model)
3-783-351-11	Manual, instruction (E model)
3-783-351-21	Manual, instruction (Canadian model)
3-795-085-31	Card, caution; cassette
3-793-828-11	Bag; plastic
4-860-421-00	Tape (Fe-Cr 46) (Canadian model)

ELECTROLYtic CAPACITORS

CAP. (μ F)	RATING					→ : Use the high voltage rated one.
	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	25 VOLT. PART No.	35 VOLT. PART No.	
0.47						→ 1-121-726-00
1.0						→ 1-121-391-00
2.2						→ 1-121-450-00
3.3	→	→	→	1-121-392-00		→ 1-121-393-00
4.7	→	→	→	1-121-395-00		→ 1-121-396-00
10	→	→	1-121-651-00	1-121-398-00		→ 1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	→ 1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	→ 1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	→ 1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	→ 1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	→ 1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	→ 1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	→ 1-121-810-00
1000	—	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	→ 1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	—
3300	1-121-661-00	1-123-075-00	1-123-071-00	—	—	—

CAP. (μ F)	100 VOLT.		160 VOLT.		250 VOLT.		350 VOLT.	
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47	—	—	—	—	—	—	—	—
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00	—	—	—	—
2.2	1-123-250-00	1-123-026-00	—	1-123-028-00	—	—	—	—
3.3	1-121-995-00	—	1-123-004-00	1-123-006-00	—	—	—	—
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00	—	—	—	—
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00	—	—	—	—
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00	—	—	—	—
33	1-121-997-00	1-121-757-00	—	—	—	—	—	—
47	1-123-251-00	1-121-919-00	—	—	—	—	—	—
100	1-123-084-00	—	—	—	—	—	—	—

CERAMIC CAPACITORS

CAP. (pF)	RATING		CAP. (pF)	RATING		CAP. (μ F)	RATING	
	50 VOLT. PART No.	CAP. (pF)		50 VOLT. PART No.	CAP. (pF)		50 VOLT. PART No.	CAP. (μ F)
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00	—
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00	—
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00	—
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00	—
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00	—
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00	—
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00	—
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00	—
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00	—
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00	—
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00	—
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00	—
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00	—
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00	—
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00	—
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00	—	—	—
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00	—	—	—
16	1-102-952-00	110	1-102-815-00	—	—	—	—	—
18	1-102-953-00	120	1-102-816-00	—	—	—	—	—
20	1-102-958-00	130	1-101-081-00	—	—	—	—	—

0.001 μ F = 1,000 pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

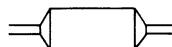
CAP. (μ F)	RATING		CAP. (μ F)	RATING		CAP. (μ F)	RATING	
	25 VOLT. PART No.	50 VOLT.<						

MYLAR CAPACITORS

CAP. (μ F)	RATING											
	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μ F)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μ F)	50 VOLT.	100 VOLT.	200 VOLT.	
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00	
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00	
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00	
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00	
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00	
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	—	—	
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	—	—	
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	—	—	
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	—	—	
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00					
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00					
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00					


TANTALUM CAPACITORS

CAP. (μ F)	RATING							→ : Use the high voltage rated one.
	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.	
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01						→		1-131-396-00
0.015						→		1-131-397-00
0.022						→		1-131-398-00
0.033						→		1-131-399-00
0.047						→		1-131-400-00
0.068						→		1-131-401-00
0.1						→		1-131-402-00
0.15						→		1-131-403-00
0.22						→		1-131-404-00
0.33						→	1-131-409-00	1-131-405-00
0.47	—	—	—	—	1-131-412-00	→		1-131-406-00
0.68	—	—	—	1-131-415-00	→	1-131-410-00		1-131-407-00
1.0	—	—	1-131-418-00	—	1-131-413-00	→		1-131-408-00
1.5	—	1-131-421-00	—	1-131-416-00	→	1-131-411-00		1-131-348-00
2.2	1-131-424-00	—	1-131-419-00	—	1-131-414-00	1-131-355-00		1-131-349-00
3.3	—	1-131-422-00	—	1-131-417-00	1-131-362-00	1-131-356-00		1-131-350-00
4.7	1-131-425-00	—	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00		1-131-351-00
6.8	—	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00		1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00		1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00		—
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00			
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00				
47	1-131-393-00	1-131-387-00	1-131-381-00	—				
68	1-131-394-00	1-131-388-00	—	—				
100	1-131-395-00	—	—	—				


TANTALUM CAPACITORS

CAP. (μ F)	RATING						
	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.	
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033							1-131-273-00
0.047							1-131-274-00
0.068							1-131-275-00
0.1							1-131-276-00
0.15							1-131-277-00
0.22				—	—	1-131-262-00	1-131-278-00
0.33				—	—	1-131-263-00	1-131-279-00
0.47			1-131-169-00	—	—	1-131-264-00	1-131-280-00
0.68			—	1-131-258-00	—	1-131-265-00	1-131-281-00
1.0			1-131-254-00	—	—	1-131-266-00	1-131-282-00
1.5		1-131-250-00	—	—	—	1-131-267-00	1-131-283-00
2.2		—	1-131-255-00	—	—	1-131-268-00	1-131-284-00
3.3		—	1-131-251-00	1-131-171-00	—	1-131-269-00	—
4.7		—	—	—	1-131-270-00	—	—
6.8		—	—	—	1-131-271-00	—	—
10	—	—	1-131-256-00	—	—	1-131-272-00	—
15	—	1-131-252-00	—	1-131-261-00			
22	—	—	1-131-257-00	—			
33	1-131-176-00	1-131-253-00	1-131-173-00	—			
47	1-131-288-00	1-131-174-00	—	—			
100	1-131-177-00						

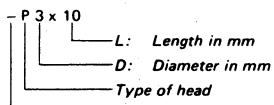
TC-K61 Limited Edition

1/4 WATT CARBON RESISTORS

Ω	Part No.												
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

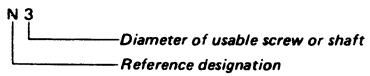
HARDWARE NOMENCLATURE

Screw:



L: Length in mm
D: Diameter in mm
Type of head
Indicated slotted-head only.
Unless otherwise indicated, it means cross-recessed head (Phillips type).

Nut, Washer, Retaining ring:



Diameter of usable screw or shaft
Reference designation

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

Sony Corporation

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